

CORRES. CONTROL
OUTGOING LTR NO.

MOE ORDER #

17 RF 02505



KAISER HILL
COMPANY

May 9, 1997



9-RF-02505

DP 5011

X.

Steve R. Schiesswohl
Realty Officer
DOE, RFFO

DISPOSAL OF GOVERNMENT-OWNED LAND AND IMPROVEMENTS -
MDB-260-97

The purpose of this correspondence is to provide information required by the Department of Energy (DOE) Order 4300.1C, Subparagraph g, for the subject buildings.

In accordance with DOE Order 4300.1C, Subparagraph g, the following responses address the 22 items of concern for disposal of government-owned land and improvements:

1. The subject buildings have been identified as excess by the Site Use Review Board during the meeting of Monday, February 10, 1997.
2. Building 965 is 586 square feet, built in 1981 with an acquisition cost of \$50,000. Building 965 was used as a storage facility for spare parts. Today, it is used as a break area for the security guard force. Building 965 is located in the protected area, north of Building 968.

Building 968 is 11,025 square feet, built in 1962 and currently used as a storage facility for the maintenance program. It is located in the protected area, to the north of Building 991. The acquisition cost of Building 968 was \$46,310.

Building 980 is 13,075 square feet, built in 1957 and currently used as a storage facility for the maintenance program. It is located in the protected area, west of Building 968 and northwest of Building 991. The acquisition cost of Building 980 was \$11,502.

Due to the change of mission at the Rocky Flats Environmental Technology Site (RFETS), DOE is requiring a reduction in landlord costs. There are no affects upon the severance, mineral, or other rights by removing these structures. There is no impact on the natural resource conservation program by removal of these buildings. Buildings 965, 968 and 980 have no historical significance, as defined by 36 CFR 800. Total square footage of all of these facilities equals 24,686 square feet.

ADMIN RECORD

B980-A-00004

Kaiser-Hill Company, L.L.C.

Courier Address Rocky Flats Environmental Technology Site, State Hwy 93 and Cactus, Rocky Flats, CO 80007 • 303.966.7000



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COMPANY

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3. The demolition of Buildings 965, 968 and 980 will have no economic or environmental impact. The environmental concerns relating to the Resource Conservation and Recovery Act (RCRA) closure and potential fugitive dust emissions during the demolition are being addressed with the Colorado Department of Public Health & Environment (CDPH&E).
4. Building 965 is currently utilized by the Wackenhut guards as a break area and does not house full time employees. Buildings 968 and 980 do not contain any full time employees.
5. A detailed cost estimate of the Buildings 965, 968 and 980 Decontamination and Demolition is enclosed (Enclosure 1). The estimated annual building cost for the buildings is as follows:

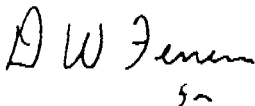
Building 965 - \$	732
Building 968 - \$	83,029
Building 980 - \$	72,436
Total -	\$156,197
6. There will be no displacement of employees with the removal of these structures.
7. The building foundations will remain in place, and addressed during environmental restoration activities which will follow the removal process.
8. There are no out-grants in place at this time. The buildings do not contain RCRA Permitted areas or RCRA temporary storage areas. All potential RCRA concerns will be resolved with CDPH&E, prior to demolition.
9. There are no recent appraisal reports available. Based on current construction values, replacement costs of the buildings is as follows:

Building 980 (13,075 square feet at \$50/sf)	\$653,750
Building 968 (11,025 square feet at \$50/sf)	\$551,250
Building 965 (586 square feet at \$50/sf)	\$ 29,300
10. There is no excess land, therefore, no restrictions are imposed.
11. The proposed removal date for Buildings 965, 968 and 980 is September 30, 1997. Employees will be working in and around the various buildings until this effort is complete.
12. The acquisition cost of these buildings does not exceed \$1 million.
13. Maps of the building locations are enclosed (Enclosures 2 and 3).
14. Photographs are enclosed (Enclosure 4).

Steve R. Schiesswohl
MDB-260-97
May 9, 1997
Page 3 of 3

15. There are three (3) facilities proposed for disposal. Please refer to item #2 for specifics on type, size and age. All three facilities are in a "run down condition". The structures are primarily used for storage.
16. There is no known interest in acquiring this property.
17. DOE has changed the mission of the Site. DOE is not contemplating acquisition of land for a similar use near this location.
18. All three structures are made of metal, which can be salvaged and sold as scrap, for some return on the demolition costs. Any material which is found to be contaminated will be decontaminated to a free release level or disposed of as contaminated waste. The land on which these buildings are built will not be released at this time. The foundations of these structures will be addressed as appropriate environmental restoration actions are taken, prior to release of this land.
19. A Standard Form 118 is not required.
20. The electrical power supply for these buildings comes from the main substations 517-2/515-2 located in a different location. The electrical power source for these structures is being removed by the actions described in this demolition effort and Polychlorinated Biphenyl contamination is not a concern for this demolition effort.
21. Friable asbestos will be remediated prior to demolition of the buildings. The asbestos-free environment will be verified prior to demolition.
22. There are no underground storage tanks associated with any of these structures.

If you have any questions or require additional information, please contact Ricia Gurule at extension 9847.



M.D. Brailsford
Vice President
Safeguards, Security,
Site Operations & Integration
Kaiser-Hill Company, L.L.C.

Orig. and 1 cc - S. Schiesswohl

Enclosures:
As Stated

4781865

Recra LabNet - Idaville Laboratory
PCBs by GC
Report Date: 06/03/97 13:12
KRM Batch Number: 91052758
Client: RAISER HILL
Work Order: 11830001001 Page: 1

Cust ID: 980-970519-N		PEAK10		PEAK10 MS		PEAK10 MSD	
S-001		001		97180934-MS1		97180934-MS1	
Matrix:		SOIL		SOIL		SOIL	
D.F.:		2.00		1.00		1.00	
Units:		ug/Kg		ug/Kg		ug/Kg	
Surrogates:		Tetrachloro-a-xylanes		Decachlorobiphenyl		Tetrachloro-a-xylanes	
Acroclor-1016		35	4	98	4	100	4
Acroclor-1221		48	4	93	4	104	4
Acroclor-1232		330	U	33	U	33	U
Acroclor-1242		660	U	67	U	67	U
Acroclor-1248		330	U	33	U	33	U
Acroclor-1254		330	U	33	U	33	U
Acroclor-1260		330	U	33	U	33	U

Dilution factor is actually 10 because of low sample weight. Sample was received unfrozen and in a plastic bag.

U= Analyzed, not detected. D= Present below detection limit. B= Present in blank. NA= Not reported. MS= Not applied.
4= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. * = Outside of EPA CLP GC

N. Stone
6/4/97

REVIEW COMMENT SHEET

Please review the attached procedure:

Number

Rev.

Draft

Building 779, Decommissioning Waste Management Plan

Title

Plan

Comment Due Date:

☐ Internal Review

☒ Parallel Review

☐ Verification

☐ Validation

☐ Revalidation

General (G) comments require resolution but do not require resolution acceptance. Mandatory (M) comments require resolution and resolution acceptance. 1-88000-PP-004 provides complete definitions of General and Mandatory comments.

ITEM G or M	PAGE	SECTION OR STEP	COMMENT	RESOLUTION	Resolution accepted INIT/DATE
G	General		How come the Waste Management activities are not discussed in the DOP or the RLCs	This WMP will be referred to in the DOP.	MCB 5-12-97
M	5	2.0	How is a pre-job assessment of sampling and analysis going to be done with-out a proper sampling and analysis plan for characterization of the waste? In accordance with what?	Reference Section 5.3, Characterization Sampling. Added the sentence "The B779 Hazardous Waste Sampling Report, provided by the B779 Hazardous Waste Sampling Team, will be used to develop a sampling plan for sampling activities in addition to the sampling requirements in the DOP. Waste ops will not perform characterization. Deleted from Resolution	MCB 5-12-97
M	7	3.3	Who is the Waste Management Liaison?	The individual identified to in the DOP.	MCB 5-12-97
M	7	3.2	Where is this person identified?		

POC/Reviewer: (Comments not signed by Reviewer/POC will be considered unofficial and not subject to resolution)

☐ No Comments

☐ This procedure revision has no impact or relevance to our discipline or organization and we waive need to concur. We acknowledge this concurrence waiver does not affect our responsibility to implement the requirements of this procedure when needed.

Name: M.C. Brooks Signature: M.C. Brooks

Ext./Pager/Fax: 5123/4636/3029 Bldg./Dept: T1303/ESH&P Date: 1-28-97

If questions on content, please call the SME:

Name: FAX: Name: Ext. Location:

Resolutions Accepted: MCB 5-12-97

Page 7 of 10

Draft

Resolutions Accepted

Date 5-17-67

REVIEW COMMENT SHEET

Time Spent on Review: _____ hrs.

Return to: _____

If questions on content, please call the SME: _____

FAX _____

Name _____

Ext. _____

Location _____

Name _____

Ext. _____

Page _____

1 of 2

Please review the attached procedure: _____

Number _____

Rev. _____

Draft _____

Title _____

Comment Due Date: _____

☐ Internal Review ☐ Parallel Review ☐ Verification ☐ Validation ☐ Revalidation

QA REVIEW

General (G) comments require resolution but do not require resolution acceptance. Mandatory (M) comments require resolution and resolution acceptance.

TYPE G or M	PAGE	SECTION OR LINE #	COMMENT	DISPOSITION	Disposition Accepted INITIALS
M	8	3.3.2	This section seems to imply that Waste Generator Service will package waste. Is this assumption correct?	no, decommissioning will package the waste using mobile generator certified personnel. Connection made to 3.3.2.	DAVE 5-12-97
M	7	3.3	Which WASTE OPERATIONS SUPPORT group provides the CERTIFICATION support shown under 3.3?	Decommissioning will assign waste generator certified personnel from the ECD department to package waste. Added responsibility for Project mgr. 3.1	DAVE 5-14-97
G	9	3.4	Will there be more than one E.C. for the 779 cluster? Will this be handled as in the 707 startup job?	Unless one E.C. prove insufficient, one E.C. will support the cluster. No, dedicated Personnel will handle the 779 cluster.	DAVE 5-17-97
M	9, 10	4.0 FINAL SENTENCE	Stating that CHARACTERIZATION AND SAMPLING REQUIREMENTS are defined in the RLCs and 1008 is misleading, those documents are lacking in the detail needed.	Added the Characterization Para. to the Summary. The detail will be added to be moved forward.	DAVE 5-17-97

POC/Reviewer: (Comments not signed by POC/Reviewer will be considered unofficial and not subject to resolution)

☐ No Comments

This procedure revision has no impact or relevance to our discipline or organization and we waive need to concur.

DAVID WARFIELD

4/87/4217 Name

Signature

TBOS

RHS QA

1-28-97

Ext./Pager/Fax

Bldg./Organization

Date

Concurrence

DAVID WARFIELD

Name

DAVID WARFIELD

Signature

5-14-97

Date

REVIEW COMMENT SHEET (continued)

Page 2 of 2

Review comments for document:

779 DECOMMISSIONING WASTE MANAGEMENT PLAN

WU 15 ISSUE

TYPE G or M	PAGE	SECTION OR LINE #	COMMENT	DISPOSITION	Disposition Accepted INITIALS
M	10	4.1, 4.2	The definition of low level and TRU waste pose a question, that <u>both</u> may be equal to 100 nCi/g.	Corrected	<i>[Signature]</i> 5/12/97
M	14	5.0	This paragraph should identify in the HAZ-WASTE manual used for waste characterization. Deleted 1-C75-HWRM-03 and/or 1-D47-HWRM-05, etc.	Referencing the HWRM should be sufficient since all sections except sections 7, 11, 12, 13, and 18 apply to 8779 Cluster	<i>[Signature]</i> 5-14-97
M	15	5-3	Use WASTE TECHNICAL SUPPORT and WASTE IDENTIFICATION AND CHARACTERIZATION the personnel involved in the sampling effort?	WIC personnel are utilized as SNE's on an "as need" basis. Sampling is either performed by qualified Decommissioning personnel or by the analytical project office (APO), WIC as a group no longer exists.	<i>[Signature]</i> 5-12-97

POC/Reviewer: (Comments not signed by the POC/Reviewer will be considered as unofficial comments)

DAVID WARFIELD

Name

[Signature]

Signature

1-28-97

Date

Concurrence

[Signature]

Signature

5-14-97

Date

REVIEW COMMENT SHEET

Time Spent on Review: _____ hrs.

If questions on content, please call the SAE:

 Return to: Mark Hickman 2145 Ed. Location Kathy Ebyk 4647 Ed. Page 1 of 1
 FAX 2145 Ed. Location Kathy Ebyk 4647 Ed. Page 1 of 1

Please review the attached procedure: _____

Number _____

Rev. _____

Draft _____

Title _____

Comment Due Date: _____

☐ Internal Review ☐ Parallel Review ☐ Verification ☐ Validation ☐ Revalidation

General (G) comments require resolution but do not require resolution acceptance. Mandatory (M) comments require resolution and resolution acceptance.

TYPE G or M	PAGE OR LINE #	SECTION OR LINE #	COMMENT	DISPOSITION	Disposition Accepted INITIALS
M	15	5.4 2nd P	NDA used in 5.4.3.371 is not Gamma Spec. They use what is called active/passive methods which involve neutron generation and measurement of gammas from the neutron interaction. Deu assay will be available in 3.5.4.9 in March.	Overruled	
	16	1st P			
	17	2.0 P	Drums in 371 or 5.4.9.		

POC/Reviewer: (Comments not signed by POC/Reviewer will be considered unofficial and not subject to resolution)

☐ No Comments
 This procedure revision has no impact or relevance to discipline or organization and we waive need to concur.

 Dennis Kirsch Ed. Location Signature 2/10/97
2820/2924/3429 T690 B Rad Eng. Signature 2/10/97

Ext./Pager/Fax _____

Bldg/Organization _____

Date _____

Concurrence

Name _____

Signature _____

Date _____

MEMORANDUM

To: Chris Gilbreath
Edd Kray

From: Ed Staith

Date: June 5, 1997

Subject: Review of PAMs for Building 123 and 980 Cluster

This memorandum is to let you know that I have reviewed the PAMs for D&D of Building 123 and the Building 980 Cluster. I have the following comments to offer for your consideration.

Building 123

Section 5.0, ARARs. This section should clearly specify whether the identified regulatory requirements are applicable or whether they are merely relevant and appropriate. This is an important distinction because a requirement determined to be applicable must be met in its entirety, while a requirement that is relevant and appropriate needs to be met considering site conditions and protection of human health and the environment.

Section 5.1.1. An analysis is needed to determine whether the NESHAP standards for asbestos are applicable or whether they are relevant and appropriate.

General Comment. An analysis is required to determine whether TSCA is applicable or relevant and appropriate for disposal of PCB contaminated light ballasts and/or asbestos that may be generated during D&D of Building 123.

Section 5.2.1. This section states that fluorescent lights will be managed as universal waste. However, the definition of universal waste does not include fluorescent lights, at this time.

Section 5.2.1. This section does not include all of the ARARs associated with RCRA. For example, if batteries will be managed as universal waste then the requirements of 6 CCR 1007-3 Part 279 are applicable requirements. In addition, the land disposal restriction (LDR) treatment standards of 6 CCR 1007-3 Part 268 are applicable to any hazardous waste removed from the area of contamination and to any hazardous waste that is excavated from the area of contamination, managed within another unit, and returned to the area of contamination. Finally, the closure requirements of 6 CCR 1007-3 Part 264 are applicable to areas associated with RCRA Unit 40 if hazardous waste was managed in that unit after November 8, 1980. If hazardous waste was not managed after that date, then those requirements may still be relevant and appropriate.

DOE guidance for this process. The affected and unaffected classifications appear to be equivalent to the Class 1 Impacted and Class 3 Impacted, respectively, going by the planned survey frequency. It is unclear why these particular classes were chosen for the Building 980 Complex. More importantly, it is unclear why no areas in Building 980 are thought to belong in the intermediate class (Class 2), which uses a more thorough scan for beta/gamma and alpha than is proposed for the "unaffected" areas (one square meter grids as opposed to 9 square meter grids). More detail in this section would provide more clarity.

cc: Steve Tarlton
Chris Gilbreath

Page deleted due to Confidential Information

Review Comment Sheet
Richard Fox, CDPH&E - Comments to draft 980 PAM

Comment:

1. Since these are simple buildings there was little wrong with the document. However, on page 7, second paragraph, last sentence states, "The PAM is the asbestos abatement notification to the State of Colorado." This is not acceptable under our regulations. One of two forms needs to be submitted. Either a DEMOLITION NOTIFICATION or an ASBESTOS ABATEMENT NOTIFICATION. I have copies of the forms, but need to know who should get them.

Disposition:

The PAM has been corrected to reflect this requirement.

MEMO

To: Bill Fitch, RFFO
From: Edd Kray, CDPHE
Date: June 26, 1997
Re: 980 PAM

Post-It™ brand fax transmittal memo 7671		# of pages >	
To	Kathy Z	From	Bill F
Co.		Co.	
Dept.		Phone #	
Fax #	8244	Fax #	

Enclosed are comments from CDPHE staff on the building 980 PAM. Additionally, my comments follow.

1. A general comment is in regard to the general paucity of radiological characterization data within the document. Based on DPP principles, rad characterization data needs to be presented within the planning document. In this PAM planning decisions are made based on "process knowledge". Page 13 states "There are no areas within the building 980 cluster that contain significant amounts of unidentified (emphasis added), uncontrolled, or unmarked radioactive contamination." How can the authors draw conclusions regarding the existence of unidentified contamination? No radiological survey results are discussed nor presented within the document.

Characterization of building structure to identify areas of contamination is needed before demolition begins. A recent CDPHE walkdown of the building shows that large amounts residual equipment within the buildings precludes surveys of floors, walls and ceilings at this time. Such needed surveys can only be accomplished when these materials are removed. We ask that the results are provided to CDPHE when obtained and prior to any demolition efforts.

2. Page 5 defines survey procedures as suggested in NUREG 5849. Other projects are using MARSSIM guidance. Does RFETS have a policy on which of these guidance documents will be applied during D&D? MARSSIM specifies a process for determining the number of survey points needed in various categories of structures. Will this be considered? MARSSIM includes more than 2 categories of affected structures. CDPHE would assume, based on the occasional discoveries of unexpected contamination at RFETS, that no structure within the PA at RFETS could fall within the totally unaffected category.
3. Page 8 states that "Data Quality Objectives form the characterization have been satisfied" What were the data quality objectives and how were they determined? What sampling data was reviewed?

Review Comment Sheet
Ed Kray, CDPH&E - Comments to draft 980 PAM

Comment:

1. A general comment is in regard to the general paucity of radiological characterization data within the document. Based on DPP principles, rad characterization data needs to be presented within the planning document. In this PAM planning decisions are made based on "process knowledge." Page 13 states "There are no areas within the building 980 cluster that contain significant amounts of unidentified (emphasis added), uncontrolled, or unmarked radioactive contamination." How can the authors draw conclusions regarding the existence of unidentified contamination? No radiological survey results are discussed nor presented within the document.

Characterization of building structure to identify areas of contamination is needed before demolition begins. A recent CDPHE walkdown of the building shows that large amounts of residual equipment within the buildings precludes surveys of floors, walls and ceilings at this time. Such needed surveys can only be accomplished when these materials are removed. We ask that the results are provided to CDPHE when obtained and prior to any demolition efforts.

Disposition:

The radiation reconnaissance level surveys have been completed. The survey information is in the Reconnaissance Level Characterization Report which is now an attachment to the 980 PAM.

Comment:

2. Page 5 defines survey procedures as suggested in NUREG 5849. Other projects are using MARSSIM guidance. Does RFETS have a policy on which of these guidance documents will be applied during D&D? MARSSIM specifies a process for determining the number of survey points needed in various categories of structures. Will this be considered? MARSSIM includes more than 2 categories of affected structures. Will this be considered? MARSSIM includes more than 2 categories of affected structures. CDPHE would assume, based on the occasional discoveries of unexpected contamination at RFETS, that no structure within the PA at RFETS could fall within the totally unaffected category.

Disposition:

On going discussions with Safe Sites Radiological Engineering have resulted in changes to the classifications originally proposed in the 980 and 123 PAMs. The classifications for the 980 Cluster are based on the guidance from the following draft documents:

- NUREG/CR5849 - Manual for Conducting Radiological Surveys in Support of License Termination
- MARSSIM - Multi-Agency Radiation Survey and Site Investigation Manual

The following classifications of areas are being used to design the 980 Cluster Close-out Radiological Survey Plan. These classifications are delineated as follows:

Review Comment Sheet
Ed Kray, CDPH&E - Comments to draft 980 PAM

Class 1 Impacted (Affected) Areas are areas that have potential contamination (based on building operating history) or known contamination (based on past or preliminary characterization survey data). This would normally include areas where radioactive materials were used and stored and where records indicate spills or other unusual occurrences could have resulted in the spread of contamination. The survey frequency will be a minimum of one fixed survey measurement and one removable survey measurement per square meter. In addition, a scan survey for alpha and beta of 100% of the applicable surface areas, including fixed equipment, is required.

Class 2 Impacted Areas are areas that have or had a potential for radioactive contamination or known contamination, but are not expected to exceed the applicable contamination limits. The survey frequency will be a minimum of one fixed survey measurement and one removable survey measurement at intervals as determined utilizing MARSSIM statistical calculations. In addition, a scan survey for alpha and beta of 10 to 100% of the applicable surface areas, including fixed equipment, will be performed as directed by Radiological Engineering Personnel.

Class 3 Impacted (Unaffected) Areas are all areas not classified as Class 1 or Class 2 Impacted or Non-Impacted. These areas are not expected to contain residual contamination above the limits, based on knowledge of building history and previous survey information. However, insufficient documentation is present to exclude the area from survey requirements. The survey frequency will be a minimum of one fixed survey measurement and one removable survey measurement per 50 square meters, or 30 points, whichever is greater. In addition, a scan survey for alpha and beta of 10% of the applicable surface areas, including fixed equipment, is required.

Non-Impacted Areas are all areas not classified as Class 1, Class 2 or Class 3 Impacted. These areas have no reasonable potential for residual contamination, based on knowledge of building history and/or previous survey information. Sufficient information is present to be assured that no residual contamination is present above the acceptance criteria.

Comment:

3. Page 8 states that "Data Quality Objectives from the characterization have been satisfied" What were the data quality objectives and how were they determined? What sampling data was reviewed?

Disposition:

U.S. Environmental Protection Agency document, EPA QA/G-4, The Data Quality Objectives Process, March 14, 1994 serves as the foundation for defining DQO's associated with characterization of the 980 Cluster. The 7 step EPA DQO process has been integrated into the Decommissioning Characterization Protocol Procedure, which serves as the guidance document for performing characterization of buildings identified for decommissioning. The RLC Plan outlines the applicable data requirements and methodology for characterization of a specific area/building and the RLCR, in turn, documents the resultant characterization.

Review Comment Sheet
Ed Kray, CDPH&E - Comments to draft 980 PAM

Attached is a copy of the characterization objectives and resulting sampling survey instructions and questions extracted from the Decommissioning Characterization Protocol Procedure.

With respect to the 980 Cluster, the following sample data was reviewed: radiological survey and holdup, asbestos, and lead paint historical data. In addition, construction information was reviewed, and an excess chemical inventory was performed.

980 PAM
DOE Comments
Bill Fitch

Comment:

Project Description

Not directly addressed in the document. A project justification section should be included which links the overall Rocky Flats mission to the project goal and explains the need for the project at this time.

Response:

Incorporated

Comment:

Project Description

Section 2 fulfills this need very well.

Response:

None required.

Comment:

Organization

The organization information is covered very well.

Response:

None required.

Comment:

Funding Documentation

Not addressed in the document. This document should provide an overview budget. A copy of the authorizing funding documents should be included, i.e., the BCP which funds this project and the WAD, as revised, where the BCP is incorporated. Any Fiscal Year 1998 funding needed for completion should also be identified. The work authorization process is not mentioned or referenced. There is no schedule for availability of funds. Contingency controls are not mentioned.

This summary level task budget should be backed up in an attachment which provides the detail at the task level. (RFFO may not monitor at that level, but RFFO needs to understand the task structure for performing the work.)

Response:

The purpose of this document is to outline the approach that will be taken and the applicable requirements for decommissioning the 980 Cluster. This document will be approved by CDPH&E and commented on by the public. The requested funding information has been included in the 980 PEP.

Comment:

Regulatory Approvals

Not directly addressed. There is some discussion of asbestos and radiation control, but more information is needed.

Response:

The requested information has been incorporated in the 980 PEP.

Comment:

Environmental Health and Safety
Addressed very well.

Response:

None required.

Comment:

Safeguards and Security

Not addressed. This document should contain security information, especially because the work must be done in the protected area.

Response:

The project has considered safeguards and security in pre-planning work activities. A project security checklist has been prepared for evaluation by WSI. In addition, information regarding safeguards and security has been included in Section 3.3 of the PAM and in the 980 PEP.

Comment:

Quality Assurance
Covered very well in Section 3.4.

Response:

None required.

Comment:

Final Survey

This is not addressed in the document.

Response:

Final survey information has been added to Section 2.3.2.1, Radiological Characterization/Final survey.

Comment:

Goals for Small and Disadvantaged Businesses

This is not addressed in the document.

Response:

This information is outside of the scope of this document but is addressed in the A/E/C/CM contract with KH. A statement covering this topic has been added to the 980 PEP.

Comment:

Technical Baseline and Work Scope Definition

More detail is needed on the work scope and technical baseline. There is no information presented to define the scope of technical activities.

Response:

Further detail is provided in the 980 PEP.

Comment:

Cost Baseline

Only major element estimates are presented. No closeout costs are included. There is insufficient information to evaluate the cost assumptions and constraints. Total project cost estimate is presented once in a summary table. No breakdown of direct and indirect costs is presented. I am concerned that the cost control accounts may not be traceable to the actual performance of work. No information is presented on the time phasing of expenditures. I am unable to discern if activity based cost estimating was used.

Response:

Appendix 2 and 3 of the 980 PEP provide the information requested.

Comment:

Schedule

A high level schedule is presented. No supporting information is presented. The PEP does not give RFFO sufficient information to track work progress. Only a level one schedule is

presented. There are no backup attachments. No activity logic is presented. No resource loaded schedule is included.

Response:

A detailed schedule has been included in Attachment 1 of the 980 PEP.

Comment:

Project Controls and Reporting

The project controls are not included. They should be incorporated by reference to the site system. What reports will be generated? To whom will they be disseminated?

Response:

Included in the 980 PEP.

Comment:

Change Control

This item is not treated. The PEP should state the thresholds so all involved understand the BCP process.

Response:

Any change in scope, schedule or budget requires a BCP. This information has been added to the PEP.

Comment:

Procurement Strategy

The strategy is not stated. Does RFFO or KH intend to set aside any portion of the work for Small or Disadvantaged Businesses?

Response:

A procurement strategy is outside in the scope of this project. Small or Disadvantaged Business related work is addressed within the A/E/C/CM contractual requirements with KH and in the 980 PEP.

Comment:

Project Risk Analysis

The traditional examination of what can go wrong in the execution of this project is not presented.

Response:

Project related risks and their associated abatement will be addressed in the health and safety plan provided by the A/E/C/CM contractor. In addition, project risk information has been added to the 980 PEP.

Comment:

Design Documentation
There is no information on the Detailed Scope of Work.

Response:

Section 3.0 of the PEP includes the Detailed Scope of Work.

Comment:

Technical Objectives
The objectives of this work are clearly stated in Section 1 and 3. They are not linked to the overall mission.

Response:

Corrected in Section 1.

Comment:

Value Engineering
No value engineering is discussed.

Response:

Not required per your request.

Comment:

Work Breakdown Structure
This item is not address. Backup information on the WBS needs to be included in the PEP.
More that one level is needed.

Response:

This comment has been addressed in the 980 PEP.

Comment:

Technical Constraints and Assumptions
Assumptions are listed in Section 5.

Response:

No response required.

Comment:

Milestones

No major project milestones are listed to support the schedule.

Response:

The major project milestones are identified in the 980 PEP.

Comment:

NEPA

NEPA documentation is also mentioned in Section 6.0, but more detail is also needed on this.

Response:

Addressed in a previous question.

Comment:

Stakeholder Concerns

This issue is not addressed. There is no plan for public information or involvement. If this project is included in a larger plan, it is not addressed.

Response:

Not incorporated per your request.

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
Hazardous Materials and Waste Management Division

INTEROFFICE COMMUNICATION

TO: Edd Kray

FROM: James Hindman *JH*

DATE: May 23, 1997

SUBJECT: Comments on Draft PAM for 980 Cluster Decommissioning

Following are my comments from my review of the draft May 1997 Proposed Action Memorandum (PAM) for the Decommissioning of the Building 980 Cluster (RF/RMRS-97-016) submitted under the May 13, 1997 cover letter to W. N. Fitch, Decommissioning Program Coordinator, DOE, RFFO from K. A. Dorr, Project Manager, Kaiser-Hill.

1. Third paragraph of section 2.1, Background: Should state that Building 968 is located east, not south, of Building 980.
2. Section 2.2, Historical Data: This section states: 1.), RCRA waste streams were managed as satellite accumulation areas (SAAs); 2.), solvents used were non-hazardous; and 3.), fluorescent tubes were crushed and placed in an SAA until shipment off-site or storage in a RCRA permitted unit. This section also states that Building 980 was constructed in 1958, long before RCRA was promulgated. RFETS must provide documentation discussing how wastes were managed prior to RCRA, if known. Secondly, RFETS must provide the information used for determining that the solvents used were non-hazardous. Lastly, RFETS must provide more information describing in detail how fluorescent bulbs were crushed and whether or not controls were in place at all times to prevent the dispersal of mercury. If the above information is inadequate, some sampling and analysis may be necessary to verify whether or not hazardous constituents, including solvents and metals, are present above levels of concern at these buildings.
3. Last paragraph of section 2.3.3: Light ballasts and fluorescent lights are not regulated as universal waste streams in Colorado.
4. Section 7.0, Documentation: Sampling and analysis data must be included in the completion report.
5. Figure 6-1, Schedule Layout: The schedule shows that the Reconnaissance Level Characterization Report (RLCR) was to be submitted at the end of April, prior to submitting the PAM to CDPHE. Do we have a copy of the RLCR? If not, we should request it.

cc: Joe Schieffelin
Steve Tarlton
Chris Gilbreath

Building 980 Cluster

General Comment. As stated above, the PAM should specify whether the identified requirements are applicable or relevant and appropriate. A requirement cannot be both applicable and relevant and appropriate.

General Comment. Section 2.3.4 indicates that sampling has confirmed the presence of asbestos but the associated TSCA requirements for disposal of asbestos waste and the NESHAP standards for asbestos have not been identified as ARARs. Please determine if these requirements should be included as ARARs for this project.

Section 5.0. This section states that no hazardous waste generation is anticipated from demolition. However, Section 2.3.3 states that lead based paint will be collected, characterized and managed in accordance with applicable hazardous waste regulations. This inconsistency should be corrected.

Section 5.0, Fourth Paragraph. The last sentence indicates that a temporary unit, specifically a 90-day accumulation area, may be established under 6 CCR 1007-3, 264.553. The text is misleading in this respect. A temporary unit may be established pursuant to the referenced regulation and waste may be managed in such unit for up to a one year period. On the other hand, a 90-day accumulation area may be established pursuant to 6 CCR 1007-3, Section 262.34. The text should be revised to state that remediation waste will be managed in either a temporary unit established pursuant to 6 CCR 1007-3, Section 264.553 or in a 90-day accumulation area established pursuant to 6 CCR 1007-3, Section 262.34, whichever is most appropriate.

Table 5-1. Asbestos requirements that are determined to be ARARs, if any, should be added to this table. Also, 6 CCR 1007-3, Part 262 and 268 should be added for waste generation and LDR treatment standards, as discussed above. Finally, DOE Order 5820.2A should be added as a TBC for radiation protection.

Review Comment Sheet
James Hindman, CDPH&E - Comments Draft 980 PAM

Comment:

1. General Comment. As stated above, the PAM should specify whether the identified requirements are applicable or relevant and appropriate. A requirement cannot be both applicable and relevant and appropriate.

Disposition:

Section 5 and Table 5-1 identify the ARARs that are applicable (substantive attributes) and TBC, no relevant and appropriate ARARs have been identified. The Section has been revised to provide additional clarification.

Comment:

2. General Comment. Section 2.3.4 indicates that sampling has confirmed the presents of asbestos but the associated TSCA requirements for disposal or asbestos waste and the NESHAPS standards for asbestos have not been identified as ARARs. Please determine if these requirements should be included as ARARs for this project.

Disposition:

TSCA is not an ARAR for asbestos. Colorado Regulation 8, Part II, is the applicable ARAR for NESHAPS standards applicable to asbestos. This has been incorporated into the ARAR section.

Comment:

3. Section 5.0. This section states that no hazardous waste generation is anticipated from demolition. However, Section 2.3.3 states that lead based paint will be collected, characterized and managed in accordance with applicable hazardous waste regulations. This inconsistency should be corrected.

Disposition:

Corrected

Comment:

4. Section 5.0, Fourth Paragraph. The last sentence indicated that a temporary unit, specifically a 90-day accumulation area, may be established under 6 CCR 1007-3, 264.553. The text is misleading in this respect. A temporary unit may be established pursuant to the referenced regulation and waste may be managed in such unit for up to a one year period. On the other hand, a 90-day accumulation area may be established pursuant to 6 CCR 1007-3, Section 262.34. The text should be revised to state that remediation waste will be managed in either a temporary unit established pursuant to 6 CCR 1007-3, Section 264.553 or in a 90-day accumulation area established pursuant to 6 CCR 1007-3, Section 262.34, whichever is most appropriate.

Review Comment Sheet
James Hindman, CDPH&E - Comments Draft 980 PAM

Disposition:

All remediation waste generated during the project will be handled in Temporary Units, with 40 CFR 264.553 as the applicable ARAR.

Comment:

5. Table 5-1. Asbestos requirements that are determined to be ARARs, if any, should be added to this table. Also, 6 CCR 1007-3, Part 262 and 268 should be added for waste generation and LDR treatment standards, as discussed above. Finally, DOE Order 5820.2A should be added as a TBC for radiation protection.

Disposition:

We believe that the DOE Order for consideration is 5420.2A rather than 5820.2A. DOE Order 5420.2A was included as a TCB ARAR.

Review Comment Sheet
James Hindman, CDPH&E - Comments Draft 980 PAM

Comment:

1. Third paragraph of Section 2.1, Background: Should state that Building 968 is located east, not south, of Building 980.

Disposition:

Corrected

Comment:

2. Section 2.2, Historical Data: This section states: 1.) RCRA waste streams were managed as satellite accumulation areas (SAAs); 2.) solvents used were non-hazardous; and 3.) fluorescent tubes were crushed and placed in an SAA until shipment off-site or storage in a RCRA permitted unit. This section also states that Building 980 was constructed in 1958, long before RCRA was promulgated. RFETS must provide documentation discussing how wastes were managed prior to RCRA, if known. Secondly, RFETS must provide the information used for determining that the solvents used were non-hazardous. Lastly, RFETS must provide more information describing in detail how fluorescent bulbs were crushed and whether or not controls were in place at all times to prevent the dispersal of mercury. If the above information is inadequate, some sampling and analysis may be necessary to verify whether or not hazardous constituents, including solvents and metals, are present above levels of concern at these buildings.

Disposition:

Prior to RCRA, waste streams were managed in compliance with industry standards and site policies and procedures. Available historical information is archived in the WSRIC historical files and can be accessed at your convenience. Process knowledge obtained from interviews with knowledgeable personnel is the source from which solvents used in the 980 Cluster were identified. WSRIC personnel then made the determination as to whether the solvents were hazardous or non-hazardous.

Prior to RCRA, the plant policy regarding disposal of spent fluorescent bulbs in the Protected Area was as follows: the bulbs were surveyed for contamination then disposed of. If survey results indicated that the bulbs were contaminated then they were packaged into drums as contaminated waste. If bulbs were not contaminated, such as in the 980 Cluster, they disposed of as sanitary landfill. With the advent of RCRA, fluorescent bulbs were crushed in a 90 day area located in Building 980. Bulbs were not crushed in the area prior to the implementation of RCRA. The crushing devices fit onto the top of the drum and contained a filter which prevented mercury from being dispersed into the environment. This is the same type of bulb crushing device presently used on-site.

Comment:

3. Last paragraph of Section 2.3.3: Light ballasts and fluorescent lights are not regulated as universal waste streams in Colorado.

Review Comment Sheet
James Hindman, CDPH&E - Comments Draft 980 PAM

Disposition:

Deleted

Comment:

4. Section 7.0, Documentation: Sampling and analysis data must be included in the completion report.

Disposition:

Any sampling and analysis data in addition to that included in the Reconnaissance Level Characterization Report will be included in the project completion report.

Comment:

5. Figure 6-1, Schedule Layout: The schedule shows that the Reconnaissance Level Characterization Report (RLCR) waste to be submitted at the end of April, prior to submitting the PAM to CDPHE. Do we have a copy of the RLCR? If not, we should request it.

Disposition:

A draft copy was provided to CDPH&E. The final RLCR will be transmitted to CDPH&E.

Review Comment Sheet
Tim Howell, DOE - Comments to draft 980 PAM

Comment:

1. Section 1.0 - paragraph 1 - Line 9

The PAM references the Ten Year Plan, which should be changed to a reference to the site life cycle baseline.

Disposition:

Corrected

Comment:

2. Section 2.3.2.1 - paragraph 1 - line 1

Is the Draft Nuclear Regulatory Commission NUREG/CR-5849 the one associated with MARSSIM? In the 123 PAM, Howell wanted MARSSIM attached as an appendix. Should this order be attached for the 980?

Disposition:

NUREG/CR-5849 was used at Fort St. Vrain to release the facility. MARSSIM provides more specific guidance on how to classify, survey, and release the facility. These two documents were provided with the 123 PAM.

Comment:

3. Section 2.3.2.2 - paragraph 1 - line 1

When reciting RFCA, provide a specific paragraph citation, especially if the information is located in an attachment.

Disposition:

Corrected

Comment:

4. Section 2.3.2.2 - paragraph 1 - line 4

Is it appropriate to use the BRCS if is not approved? Paragraph 2 states that the more conservative criteria in DOE Order 5400.5 will be used until the BRCS is approved, but does not state the criteria. Shouldn't those criteria be included as well?

Disposition:

The release criteria will be included in the final survey plan. The current language is consistent with the 123 PAM.

Review Comment Sheet
Tim Howell, DOE - Comments to draft 980 PAM

Comment:

5. Section 2.3.2.2 - last paragraph - line 3

In reference to 10 CFR Part 834, this needs a lot more explanation or an alternative statement that if other requirements are established, that they will be met also.

Disposition:

The reference to 10 CFR Part 834 has been deleted.

Comment:

6. Section 2.3.4 - paragraph 4 - last line

Can the PAM serve as the notification of asbestos abatement to the State of Colorado?

Disposition:

The CDPH&E has indicated that the PAM cannot serve as the asbestos notification. The PAM has been adjusted to reflect this information.

Comment:

7. Section 3.3.1 - paragraph 1 - line 8

Another reference to the TYP, change to site life cycle baseline.

Disposition:

Corrected

Comment:

8. Section 3.3.1 - paragraph 1 - line 6

The PAM references the DPP, which is not appropriate and must be removed because a draft is not finished yet. The DPP can not be reference in any RFCA decision documents at this time.

Disposition:

Corrected

Comment:

9. Section 3.3.1

Review Comment Sheet
Tim Howell, DOE - Comments to draft 980 PAM

Other regulatory activities should be cited, such as the Historical Preservation Act, consultation with SHPO and the U.S. Park Services. The site programmatic consultation with SHPO is a planning document which should be referenced. Also include General Services Administration (GSA) and Housing and Urban Development (HUD) notifications, establishment of the CERCLA administrative record.

Disposition:

Corrected

Comment:

10. Section 3.3.1 - last paragraph - line 4

The Reconnaissance Level Characterization Report reference here should be included in the PAM as an appendix.

Disposition:

The Reconnaissance Level Characterization Report has been included as an attachment.

Comment:

11. Section 3.3.2 - last paragraph - line 4

States that the dismantlement plans are not finished. Should they be completed before the PAM is approved?

Disposition:

This statement has been removed.

Comment:

12. Section 3.5 - paragraph 1 - line 4

Indicates that a HASP will be developed, should it already be developed before DOE approves the PAM? In the 123 PAM, rev 0 was already developed.

Disposition:

See previous response.

The 980 Cluster SOW identifies the known hazards associated with the work to be performed from which the subcontractor can generate a project specific Health and Safety Plan.

Review Comment Sheet
Tim Howell, DOE - Comments to draft 980 PAM

Comment:

13. Section 3.6 - paragraph 2 - line 3

States "radiological hazards are associated with a facility." It needs "that" or "which" in front of the "are".

Disposition:

Corrected

Comment:

14. Section 3.6.2 - paragraph 2 - line 3

States that it is not anticipated to need an SAP. Should the SAP be prepared and provided to DOE before approving the PAM? The SAP should be included in the PAM as an appendix. Please provide a specific paragraph citation of RFCA, especially if it is an attachment to RFCA.

Disposition:

No Sampling and Analysis Plan is required because the project is not doing any environmental remediation.

Comment:

15. Section 3.7 - paragraph - line 1

It is OK to approve the PAM without a Waste Management Plan? The PAM references the RLCR, which should be in the appendix, so maybe this is fine.

Disposition:

A Waste Management Plan is not a requirement of RFCA. The Subcontractor, responsible for performing the demolition of the 980 Cluster will generate a Waste Management Plan for KH approval prior to performing demolition activities.

Comment:

16. Section 4.0 - paragraph 1 - line 6

Another reference to the DPP, which must be removed for reasons cited in number 5.

Disposition:

All references to the DPP have been removed.

Review Comment Sheet
Tim Howell, DOE - Comments to draft 980 PAM

Comment:

17. Section 4.0 - paragraph 1 - line 7

Following from number 11, the PAM can not reference other documents to fulfill the NEPA section. It must have a larger NEPA values section which must include, at a minimum, thoughtful consideration of alternatives to the proposed action. This includes the "No Action" alternative and a discussion of the potential for irretrievable/irreversible commitment of natural resources.

Disposition:

A more descriptive NEPA section has been incorporated. Alternatives have been identified and evaluated. The potential for irretrievable/irreversible commitment of natural resources has been addressed.

Comment:

18. Section 4.0 - paragraph 1 - last sentence

States "anticipated environmental effects", all NEPA work must be done before the PAM is released.

Disposition:

This section has been rewritten to include additional NEPA information.

Comment:

19. Section 5.0 - paragraph 5

States that PCB content of the concrete slabs is unknown. Why haven't they taken a sample yet?

Disposition:

This statement is an error and has been corrected. Sampling for PCBs has occurred and no PCBs have been detected.

MEMORANDUM

TO: Edd Kray
FROM: Diane Niedzwiecki
DATE: June 20, 1997
RE: Comments on PAM for the Decommissioning of Building 980 Complex

General Comment:

1) I have one major comment on the Building 980 Complex PAM. I have made the same comment on the Building 123 PAM. I think it would be wise, given the past releases of uranium radionuclides during remediation at the T3/T4 trenches, for DOE to have air monitors in place at the site during the decommissioning of these and any other buildings at Rocky Flats. At Trenches 3 and 4 the presence of radionuclides was known prior to any remediation work, and there still was a release. Even though no work site histories at Buildings 980 and 123 indicate the likelihood of radionuclides being present, work site histories are often inadequate. The safety of the workers should be a priority, and this would be the best way of knowing that safety is maintained. It should be done even though this monitoring would cost a little more.

Specific Comments

2) This document is a little confusing in that there is mention on page 4 that asbestos abatement was done in Building 980, however, no mention is made after that of any special effort to detect possible asbestos left in the areas where this type of work was done. There is only mention of the investigation for asbestos in building materials intrinsic to Building 980. Has there ever been an investigation to determine whether there are any high concentrations of asbestos dust particularly in the building areas where asbestos abatement was performed? Were the asbestos abatement areas thoroughly cleaned prior to decommissioning? The text needs to be more clear on this subject.

3) The description of how areas within the building will be classified and surveyed for radioactivity differs in this PAM for Building 980 from the description of the same process in the PAM for Building 123. The PAM for Building 123 divides areas into 4 classes, Class 1 Impacted, Class 2 Impacted, Class 3 impacted and Non-impacted, while the PAM for Building 980 divides areas into only two, either affected or unaffected, even though both PAMs reference the same



exkray%smtpgate.dphe.state.co.us@inet.rfets.gov
06/20/97 12:11 PM

Please respond to exkray%smtpgate.dphe.state.co.us@inet.rfets.gov

To: Edd Kray

cc:

Subject: 980 Cluster PAM -Forwarded

Forwarded Mail received from: Edward Kray

Date: Fri, 20 Jun 1997 18:11:52 +0000
From: RICHARD FOX <rdfox@smtpgate.dphe.state.co.us>
To: csgilbre@smtpgate.dphe.state.co.us,
exkray@smtpgate.dphe.state.co.us
Subject: 980 Cluster PAM

Since these are simple buildings there was little wrong with the document. However, on page 7, second paragraph, last sentence states, "The PAM is the asbestos abatement notification to the State of Colorado." This is not acceptable under our regulations. One of two forms needs to be submitted. Either a DEMOLITION NOTIFICATION or an ASBESTOS ABATEMENT NOTIFICATION. I have copies of the forms, but need to know who should get them.

If you have any questions let me know.

Review Comment Sheet
Diane Niedzwiecki, CDPH&E - Comments to draft 980 PAM

Comment:

1. I have one major comment on the Building 980 Complex PAM. I have made the same comment on the Building 123 PAM. I think it would be wise, given that past releases of uranium radionuclides during remediation at the T3/T4 trenches, for DOE to have air monitors in place at the site during the decommissioning of these and any other buildings at Rocky Flats. At Trenches 3 and 4 the presence of radionuclides was known prior to any remediation work, and there still was a release. Even though no work site histories at Building 980 and 123 indicate the likelihood of radionuclides being present, work site histories are often inadequate. The safety of the workers should be a priority, and this would be the best way of knowing that safety is maintained. It should be done even though this monitoring would cost a little more.

Disposition:

Buildings 980, 968, and 965 have never been plutonium, uranium or beryllium operations buildings. The Air Quality Management Program has evaluated the potential for emissions of concern with respect to the project. The PAM ARAR section contains applicable, relevant and appropriate and TBC requirements for which the project will adhere to. Radiological surveys will be performed on the 980 Cluster prior to demolition. In the event that survey information contradicts with historical information, additional precautionary measures will be evaluated and instituted, as appropriate, to ensure safety of workers, the environment and the public. In addition, the existing Radioactive Ambient Air Monitoring Program (RAAMP) continuously monitors airborne dispersion of radioactive materials from the Site into the surrounding environment.

Comment:

2. This document is a little confusing in that there is mention on page 4 that asbestos abatement was done in Building 980, however, no mention is made after that of any special effort to detect possible asbestos left in the areas where this type of work was done. There is only mention of the investigation for asbestos in building materials intrinsic to Building 980. Has there ever been an investigation to determine whether there are any high concentrations of asbestos dust particularly in the building areas where asbestos abatement was performed? Were the asbestos abatement areas thoroughly cleaned prior to decommissioning? The text needs to be more clear on this subject.

Disposition:

Maintenance oriented asbestos work was performed on the plumbing in Building in 980. This work was conducted prior to current Site administrative and engineering controls.

Prior to performing any activities which might suspend potential asbestos fibers into the air, dust samples were obtained and analyzed to ensure that workers would not be exposed. The area was administratively isolated until the results of the dust sampling were obtained. The resulting data identified no asbestos. The area around the asbestos containing material remains isolated until abatement in support of demolition is performed.

Review Comment Sheet
Diane Niedzwiecki, CDPH&E - Comments to draft 980 PAM

Comment:

3. The description of how areas within the building will be classified and surveyed for radioactivity differs in this PAM for Building 980 from the description of the same process in the PAM for Building 123. The PAM for Building 123 divides areas into 4 classes, Class 1 Impacted, Class 2 Impacted, Class 3 Impacted and Non-impacted, while the PAM for Building 980 divides areas into only two, either affected or unaffected, even though both PAMs reference the same DOE guidance for this process. The affected and unaffected classifications appear to be equivalent to the Class 1 impacted and Class 3 impacted, respectively, going by the planned survey frequency. It is unclear why these particular classes were chosen for the Building 980 complex. More importantly, it is unclear why no areas in Building 980 are thought to belong in the intermediate class (Class 2), which uses a more thorough scan for beta/gamma and alpha than is proposed for the "unaffected" areas (one square meter grids as opposed to 9 square meter grids). More detail in this section would provide more clarity.

Disposition:

On going discussions with Safe Sites Radiological Engineering have resulted in changes to the classifications originally proposed in the 980 and 123 PAMs. The classifications for the 980 Cluster are based on the guidance from the following draft documents:

- NUREG/CR5849 - Manual for Conducting Radiological Surveys in Support of License Termination
- MARSSIM - Multi-Agency Radiation Survey and Site Investigation Manual

The following classifications of areas are being used to design the Building 980 Cluster Close-out Radiological Survey Plan. These classifications are delineated as follows:

Class 1 Impacted (Affected) Areas are areas that have potential contamination (based on building operating history) or known contamination (based on past or preliminary characterization survey data). This would normally include areas where radioactive materials were used and stored and where records indicate spills or other unusual occurrences could have resulted in the spread of contamination. The survey frequency will be a minimum of one fixed survey measurement and one removable survey measurement per square meter. In addition, a scan survey for alpha and beta of 100% of the applicable surface areas, including fixed equipment, is required.

Class 2 Impacted Areas are areas that have or had a potential for radioactive contamination or known contamination, but are not expected to exceed the applicable contamination limits. The survey frequency will be a minimum of one fixed survey measurement and one removable survey measurement at intervals as determined utilizing MARSSIM statistical calculations. In addition, a scan survey for alpha and beta of 10 to 100% of the applicable surface areas, including fixed equipment, will be performed as directed by Radiological Engineering Personnel.

Class 3 Impacted (Unaffected) Areas are all areas not classified as Class 1 or Class 2 Impacted or Non-Impacted. These areas are not expected to contain residual

Review Comment Sheet
Diane Niedzwiecki, CDPH&E - Comments to draft 980 PAM

contamination above the limits, based on knowledge of building history and previous survey information. However, insufficient documentation is present to exclude the area from survey requirements. The survey frequency will be a minimum of one fixed survey measurement and one removable survey measurement per 50 square meter, or 30 points, whichever is greater. In addition, a scan survey for alpha and beta of 10% of the applicable surface areas including fixed equipment, is required.

Non-Impacted Areas are all areas not classified as Class 1, Class 2 or Class 3 Impacted. These areas have no reasonable potential for residual contamination, based on knowledge of building history and/or previous survey information. Sufficient information is present to be assured that no residual contamination is present above the acceptance criteria.



Rocky Mountain
Remediation Services, L.L.C.
... protecting the environment

RF/RMRS-97-016

Proposed Action Memorandum (PAM)

For The Decommissioning Of The Building 980 Cluster

Rocky Mountain Remediation Services, L. L. C.

Revision 0

AUGUST 1997

"REVIEWED FOR CLASSIFICATION
By *Natasha G. [Signature]*
Date *8/4/97*

PROPOSED ACTION MEMORANDUM

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Attachment 1 - Project Schedule

Attachment 2 - Reconnaissance Level Characterization Report For The Building 980

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TABLES

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ACRONYMS

ACM	Asbestos Containing Material
AHA	Activity Hazard Analysis
ARARs	Applicable or Relevant and Appropriate Requirements
BRCS	Building Radiation Cleanup Standard
CCR	Colorado Code Of Regulations
CDPHE	Colorado Department Of Public Health And Environment
CFR	Code Of Federal Regulations
D&D	Decontamination And Decommissioning
DOE	U. S. Department Of Energy
EDE	Effective Dose Equivalent
EPA	U. S. Environmental Protection Agency
FSP	Field Sampling Plan
GSA	General Services Administration
HASP	Health And Safety Plan
HSP	Health And Safety Practices
HUD	United States Department of Housing and Urban Development
IWCP	Integrated Work Control Program
Kv	Kilovolt
LLW	Low-Level Waste
mrem	millirem
NAAQS	National Ambient Air Quality Standards
NCR	Non-Conformance Report
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards For Hazardous Air Pollutants
OSHA	Occupational Safety And Health Administration
PM	Project Manager
PA	Protected Area
PAM	Proposed Action Memorandum
PCB	Polychlorinated Biphenyl
PHA	Project Hazard Assessment
ppm	parts per million
PPE	Personal Protective Equipment
QA	Quality Assurance
QAPP	Quality Assurance Program Plan
QC	Quality Control

RBA	Radiological Buffer Area
RCRA	Resource Conservation And Recovery Act
RFCA	Rocky Flats Cleanup Agreement
RFETS	Rocky Flats Environmental Technology Site
RLCR	Reconnaissance Level Characterization Report
RPOSO	Radiation Protection And Occupational Safety Officer
SAP	Sampling and Analysis Plan
SAA	Satellite Accumulation Area
TBC	To Be Considered
TSCA	Toxic Substances Control Act

PROPOSED ACTION MEMORANDUM FOR THE DECOMMISSIONING OF THE BUILDING 980 CLUSTER

1.0 PURPOSE

This Proposed Action Memorandum (PAM) outlines the approach that will be taken and the applicable requirements that will be utilized in the decommissioning of Buildings 965, 968, and 980 (the Building 980 Cluster) as part of the site cleanup of the Rocky Flats Environmental Technology Site (RFETS). The removal is being conducted in accordance with the Rocky Flats Cleanup Agreement (RFCA [Department of Energy (DOE), 1996]) and the Applicable or Relevant and Appropriate Requirements (ARARs) of the Federal, State, and local regulations identified in Table 5-1. In accordance with RFCA the decommissioning will be conducted as non-time critical removal actions under the Comprehensive, Environmental Response, Compensation, and Liability Act, an interim action, and is in keeping with the Site Lifecycle Baseline. The regulatory requirements are implemented through RFETS policies and procedures. This action will be conducted in a manner which is protective of site workers, the public, and the environment.

2.0 PROJECT DESCRIPTION

2.1 BACKGROUND

The Building 980 Cluster is located near the center of RFETS within the Protected Area (PA) (see Figure 2-1). The associated facilities currently have no mission or scope. They were previously utilized as warehouses and to store construction equipment, building material, and supplies for contractors on-site.

Building 965 is a single-story corrugated metal structure constructed on a concrete slab. The facility is located on the eastern side of RFETS. Building 965 is 25 feet long by 25 feet wide by approximately 18 feet high; the total floor space square footage is approximately 625.

Building 968 is a single-story corrugated metal structure constructed on a concrete slab. The facility is located on the eastern side of RFETS. The facility is situated east of 980. Building 968 is 125 feet long by 95 feet wide by approximately 18 feet high; the total floor space square footage is approximately 11,875.

Building 980 is a single-story corrugated metal structure constructed on a concrete slab. The facility is located on the eastern side of RFETS. The facility is situated south of Spruce Avenue and Building 910. Building 980 is 200 feet long by 65 feet wide by approximately 18 feet high; the total floor space square footage is approximately 13,000.

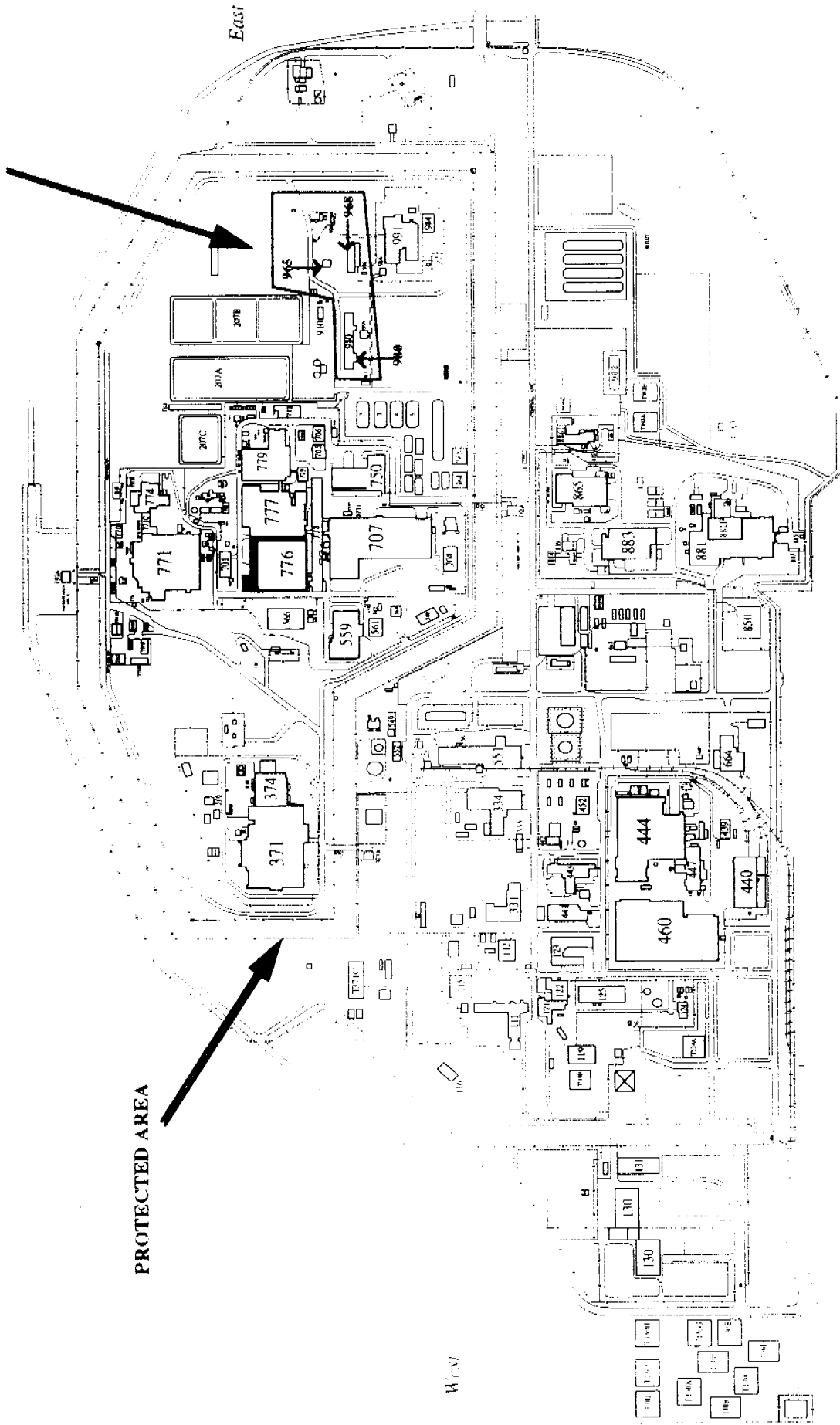
Sewage, domestic water, and natural gas lines feed into Buildings 968 and 980. The natural gas line feeds into Building 980 on the north side and on the west side of Building 968. Building 968 has a post indicating valve (fire suppression valve) located at the northwest end of the facility. Building 965 contains no sewage, domestic water, steam and condensate lines, or natural gas lines.

Electrical power for the Building 980 Cluster originates at Substation 517-2. An overhead 13.8 Kv line branches to Power Pole C6-673B. At Power Pole C6-673B, the 13.8 Kv line enters a conduit that is routed down the pole and underground to Transformer T-980. From the primary side of Transformer T-980, the 13.8 Kv is stepped down to 480 volts, 3 phase, on the secondary side. The 480 volts on the secondary side of Transformer T-980 supplies the line side of a disconnect switch that is attached to T-980. From the load side of the disconnect switch a conduit containing

Buildings 965, 968, And 980 D&D Area

BUILDINGS 965, 968, AND 980 STRUCTURE

North



South

Figure 2-1 Site Map

the 480 volt cable is routed up Power Pole C6-673A where it exits a weatherhead and is tapped onto an overhead line. This overhead line supplying 480 volts is routed directly to Building 980 from this point. Also from this point, the overhead line supplies 480 volts to Buildings 968 and 965 via Power Poles C7-652 and C7-652A.

2.1.1 Foundations

Foundations for Buildings 965, 968, and 980 are horizontal, poured-in-place, reinforced concrete spread footings. In depth, below grade, they vary from 3 ft to 9 ft. Reinforced concrete grade beams, 16 in. to 18 in. wide and 10 in. to 13 in. thick, rest on the spread footings. Concrete grade walls 10 1/2 in. to 12 in. thick and 4 ft 6 in. deep support the exterior walls.

2.1.2 Structural Framing

The following describes the framing members used in Buildings 965, 968, and 980. Columns constructed of metal beams rest on slab footings, supporting the corrugated walls and ceilings in Building 965 and Building 980. Building 968 has wood beams supporting the corrugated metal walls and metal beams supporting the ceiling. The majority of the beams are painted with industrial epoxy paint.

2.1.3 Exterior Walls

Exterior walls of Buildings 965, 968, and 980 are made of corrugated steel. The walls are not insulated. Outer surfaces of the metal walls are unpainted. The walls are designed to be the equivalent of 2-hr fire-rated walls.

2.1.4 Floors

The floor slabs in Buildings 965, 968, and 980 are poured-in-place, reinforced concrete 6 to 8 in. thick, with a barrier on a gravel base.

2.1.5 Roofs

The roofs on all three facilities are constructed of corrugated metal with a few fiberglass sunlight panels inserted. There is no asbestos containing material (ACM) associated with the roofing materials.

2.1.6 Interior Walls

Most interior and exterior walls in Buildings 968 and 980 are corrugated metal. The interior surface of the exterior walls is un-insulated metal.

2.1.7 Ceilings

Ceilings in offices and hallways are suspended acoustical tile. Elsewhere in Buildings 965, 968, and 980 the ceilings are the underside of floors and roofs.

2.1.8 Doors

Most of the personnel doors in Buildings 965, 968, and 980 are either solid steel, steel with louvers, or steel with safety glass windows. Building 980 has 13 metal roll-up doors at various locations on the north and south side of the building, and one large sliding door on the east end of the facility. Building 968 has two large sliding doors at the northeast and southeast ends of the facility. Building 965 has one rolling door at the south end of the facility.

2.1.9 Windows

There are windows in Buildings 965, 968, and 980. Building 980 has seven windows on the south side and five on the north side. Building 968 has two windows on the east side and three on the west side. Building 965 has one window on the north and east sides and two on the west side of the facility.

2.1.10 Surface Finishes

Most interior and exterior walls in Building 980 are not painted. Beam and railing areas are painted with epoxy. Walls are corrugated metal and the floors are painted concrete.

2.2 HISTORICAL DATA

Building 965, constructed in 1981, functioned as a maintenance shop until 1996, and was utilized for various carpentry services and equipment repairs. Wood products were brought into the facility to be drilled, cut and made into scaffolding, shoring, and desk supports. In addition, equipment, such as pumps and electric motors, were brought in for repair. Tools, including drills, routers, and saws were utilized in this area. No hazardous waste streams originated from this facility.

Building 968, constructed in 1982, was used by the construction subcontractor for storage, warehousing, and support shops for their activities at the plant. The facility housed work and staging areas for painting (mixing and blending) and motorpool maintenance. Waste was generated during these processes and while conducting facility maintenance. Resource Conservation and Recovery Act (RCRA) waste streams were managed in Satellite Accumulation Areas (SAAs) (e.g., paint sludge with thinner/solvents, flammable waste and paint equipment). Waste generated in support of motorpool activities included: combustibles, broken parts, used absorbent, and empty containers. Used oil and filters were recycled, solvents used were non-hazardous, batteries were reclaimed, and aerosol cans were punctured then recycled. Fluorescent tubes were crushed and placed in a SAA until shipped off-site or placed in a RCRA permitted unit.

Building 980, constructed in 1957, was previously used by subcontractors for storage, warehousing, and as a support shop for their activities. Operations within Building 980 included: sheet metal work, painting, iron work, asbestos abatement, carpentry, millwright work, and motorpool maintenance. RCRA waste streams were managed in SAAs (e.g., paint sludge with thinner/solvents, flammable waste and paint equipment). Waste generated in support of motorpool activities included: combustibles, broken parts, used absorbent, and empty containers. Used oil and filters were recycled, solvents used were non-hazardous, batteries were reclaimed, and aerosol cans were punctured then recycled. Fluorescent tubes were crushed and placed in a SAA until shipped off-site or placed in a RCRA permitted unit.

2.3 BUILDING HAZARD SUMMARY

2.3.1 General

The Building 980 Cluster historic information, including the Waste Stream and Residue Identification and Characterization building books for Buildings 965, 968, and 980, was reviewed to determine the hazardous materials and hazardous waste associated with these facilities. Previous facility occupants were interviewed to assist with this scoping characterization effort. Hazardous material information is summarized in the following sections. The information provided also indicates that hazardous wastes generated from operations were removed from the facilities for disposal or accumulated in SAAs for staging purposes. At this time, there are no hazardous wastes being stored in the facilities.

2.3.2 Radiological Concerns

Based on the process knowledge associated with Buildings 965, 968, and 980, and their general use as warehouses, there is no expectation of radiological contamination except in the following areas:

- A radiological buffer area (RBA) and a contamination area presently exist in the east end of Building 980. A slightly contaminated pumping truck was decontaminated in the area and is currently present. The truck and contamination area will be removed prior to the implementation of this PAM. Based on previous and recent radiological surveys, no radiological contamination has been detected on the facility surfaces in the RBA in the vicinity of the truck.
- A potential for radiological contamination exists on the metal surfaces on the outside of Buildings 965, 968, and 980 as a result of potentially contaminated spray, during high wind conditions, from solar evaporation ponds to the north and west of the facilities.

2.3.2.1 Radiological Characterization/Final Survey

The radiological characterization/final survey for the Building 980 Cluster is based on the guidance from the following draft documents:

- NUREG/CR5849 - Manual for Conducting Radiological Surveys In Support Of License Termination
- MARSSIM - Multi-Agency Radiation Survey And Site Investigation Manual.

The following classifications of areas are being used for characterization and final survey. These classifications are delineated as follows:

- Class 1 Impacted (Affected) Areas are areas that have potential contamination (based on building operating history) or known contamination (based on past or preliminary characterization survey data). This would normally include areas where radioactive materials were used and stored and where records indicate spills or other unusual occurrences could have resulted in the spread of contamination. The survey frequency will be a minimum of one fixed survey measurement and one removable survey measurement per square meter. In addition, a scan survey for alpha and beta of 100% of the applicable surface areas, including fixed equipment, is required.
- Class 2 Impacted Areas are areas that have or had a potential for radioactive contamination or known contamination, but are not expected to exceed the applicable contamination limits. The survey frequency will be a minimum of one fixed survey measurement and one removable survey measurement at intervals as determined utilizing MARSSIM statistical calculations. In addition, a scan survey for alpha and beta of 10% to 100% of the applicable surface areas, including fixed equipment, will be performed as directed by Radiological Engineering personnel.
- Class 3 Impacted (Unaffected) Areas are all areas not classified as Class 1 or Class 2 Impacted or Non-Impacted. These areas are not expected to contain residual contamination above the limits, based on knowledge of building history and previous survey information. However, insufficient documentation is present to exclude the area from survey requirements. The survey frequency will be a minimum of one fixed survey measurement and one removable survey measurement per 50 square meter or 30 points, whichever is greater. In addition, a scan survey for alpha and beta of 10% of the applicable surface areas, including fixed equipment, is required.

Some of the
Engineering Staff
is still in the
Building
under
RFCS?

Non-Impacted Areas are all areas not classified as Class 1, Class 2, or Class 3 Impacted. These areas have no reasonable potential for residual contamination, based on knowledge of building history and/or previous survey information. Sufficient information is present to be assured that no residual contamination is present above the acceptance criteria.

Criteria defined in DOE Order 5400.5, the RFETS Radiological Control Manual, and associated RFETS radiation protection procedures will be used to determine the potential for building surfaces, equipment, and demolition debris to be conditionally released.

2.3.2.2 Unconditional Radiological Release Criteria

In accordance with the RFCA, Attachment 9, residual radioactive contamination levels present on facility surfaces and demolition materials will be reduced to a level that will not cause the maximally exposed member of the public to receive, through all potential pathways, an effective dose equivalent (EDE) of 15/85 mrem above background in any single year. The RFETS Building Radiation Closure Standard (BRCS) will delineate the specific levels of residual radioactive materials contained in remaining facility surfaces, and demolition debris that is compliant with the 15/85 mrem limit and appropriate As Low As Reasonably Achievable considerations. The BRCS is currently being developed in coordination with the Environmental Protection Agency (EPA), Colorado Department of Public Health and Environment (CDPHE), and DOE.

Until such time as the BRCS is approved, the more conservative criteria contained in DOE Order 5400.5 and associated RFETS radiation protection procedures will be used to determine if facility surfaces, equipment, and demolition debris is acceptable for unconditional release.

The unrestricted release of equipment removed from RFETS will comply with DOE Order 5400.5, RFETS Radiological Control Manual and associated RFETS radiation protection implementing procedures.

2.3.3 RCRA

Painted surfaces are present throughout the Building 980 Cluster. Safety paint (yellow and red) used in the facilities is lead based. Historical knowledge, age of the facilities, and analytical data obtained from similar paints from like structures serves as the basis for the assumption that surfaces coated with safety paint are lead based.

The site Lead Abatement Protocol will be implemented in the event that work is performed on lead containing surfaces. Prior to demolition, waste will be collected, characterized, and managed in accordance with applicable hazardous waste regulations.

2.3.4 Asbestos

Asbestos characterization activities have been performed in the Building 980 Cluster and included a review of documents detailing facility history, facility construction drawings, walkdowns, sample collection, and analysis and evaluation, and documentation of results and conclusions. The asbestos characterization survey was designed and managed by a qualified individual in accordance with the requirements of 29 Code Of Federal Regulations (CFR) 1926.1101. Samples were collected at locations identified during the review of facility drawings and walkdowns. Surveys were performed by certified personnel according to the guidelines set forth by the Asbestos Hazard Emergency Response Act and in compliance with the EPA, Occupational Safety And Health Act (OSHA), and CDPHE regulations. Asbestos inspections were performed using trained individuals and written procedures. All samples were tracked from sample collection through transport and analysis. All samples were analyzed at a certified

Better to say for DOE
Order old will be followed
unless there is a
change in the standard or
policy

What about
PCBs?
Paint?
Need this
issue
addressed

laboratory. Data was recorded in an orderly and verifiable manner and was reviewed by a qualified Building Inspector for accuracy and consistency. A report has been prepared summarizing laboratory results including sample location, sample description, asbestos type and percent, non-asbestos fiber types, matrix types, and sample color. The resulting analytical data confirms the presence of asbestos in the insulation on the water pipe fittings in Buildings 968 and 980, and wall board in Building 980 as follows:

- Building 965 - No asbestos has been discovered in this facility.
- Building 968 - 21 mudded fittings and 35 linear feet of pipe insulation in the rest room area contains asbestos and will be handled utilizing asbestos abatement procedures.
- Building 980 - Five mudded fittings and 20 linear feet of pipe insulation in the rest room area contains asbestos and one section of a wall consists of transite wall board.

All identified asbestos will be handled utilizing asbestos abatement procedures and all demolition activities performed in the vicinity of ACM, will be conducted by certified personnel in compliance with State regulatory requirements.

Buildings 965, 968, and 980 were inspected by a State Certified Asbestos Building Inspector as part of the reconnaissance characterization process. Suspect materials were: thermal systems insulation, surfacing materials, and miscellaneous materials. Subsequent sampling identified less than 160 linear feet of friable thermal systems insulation and, approximately, 300 square feet of non-friable cementitious board total for the cluster.

State of Colorado Regulation 8 Part B states that the control of asbestos requires notification if the amount of asbestos exceeds 160 linear, 260 square, or the volume equivalent of one 55 gallon drum. This notification must precede the intended abatement date by ten days. Notification will be made to the State of Colorado in accordance with Regulation 8, Part B, Section 3, (3)(b)(iii).

In addition to the notification for asbestos abatement, the State requires a Demolition Notification Form to be submitted that documents the facility has been inspected by a certified asbestos building inspector, and that all ACMs, excluding tar impregnated roofing felt and vinyl asbestos tile, have been removed prior to demolition. Notification will be made to the State of Colorado in accordance with Regulation 8, Part B, Section 3 (3)(b)(i,ii,iii).

3.0 PROJECT MANAGEMENT OVERVIEW

3.1 PROJECT ORGANIZATION

3.1.1 Project Manager (PM)

The Building 980 Cluster Decommissioning PM reports to the Manager of Engineering/Construction/Decommissioning/Facilities and is responsible for the overall management of the project. To carry out this function, the PM is responsible for and has the authority for the development, execution, supervision, coordination, and integration of all aspects of the decommissioning project's planning, staffing, management, and operations activities. All project aspects will be completed under his/her direction or through a designated individual.

3.1.2 Radiation Protection And Occupational Safety Officer (RPOSO)

The RPOSO reports to the Building 980 Cluster PM for priorities associated with day-to-day project related activities. The RPOSO has responsibility for facility characterization,

implementation of the RFETS Radiological Control Manual and final survey development and implementation. The RPOSO will maintain a direct reporting relationship to the Rocky Mountain Remediation Services, L. L. C. Health and Safety Manager and the Kaiser-Hill Company, L. L. C. Radiation Protection Manager for ensuring project activities are compliant with applicable health and safety regulations and requirements. This dual reporting relationship will allow independence of perceived project pressures due to schedule and funding demands.

3.1.3 Decommissioning Construction Management Superintendent

The decommissioning Construction Management Superintendent reports to the PM and is responsible for managing the decommissioning team (labor and supervision), in completing the decommissioning activities which include the decontamination of surfaces, structures, materials and equipment, the decommissioning activities of sub-contractor's work, the movement, packaging and storage of wastes on-site, the monitoring of performed work verses planned activities, and for maintaining time records of the operating staff. The decommissioning Construction Management Superintendent is also responsible for ensuring that activities are performed in accordance with applicable Integrated Work Control Program (IWCP) procedures, including tasks plans, radiation work permits, and safety requirements.

3.1.4 Project Administrator

The Project Administrator reports to the PM. The Project Administrator is responsible for establishing and maintaining the project files which will include all project related documentation. The Project Administrator will also provide clerical and secretarial support to the PM. The Project Administrator will provide a copy of all project documents to the Administrative Record for distribution.

3.1.5 Project Cost And Schedule Lead

The Project Cost and Schedule Lead reports to the PM and is responsible for establishing, maintaining, and reporting project cost and performance utilizing the Primavera software. The Project Cost and Schedule Lead is responsible for generating status reports and schedules as requested by the PM.

3.1.6 Quality Assurance (QA) Engineer

The QA Engineer is responsible for performing assessments and surveillances of project activities, inspections of selected activities, assists in training project personnel on Quality Control (QC) requirements, provides concurrence regarding the dispositioning of Non-Conformance Reports (NCRs) and reviews project procedures for quality requirements by providing quality related input. The QA Engineer is also responsible for initiating discrepancy reports, NCRs, Corrective Action Requests, and reviewing worker training records to ensure workers are appropriately trained. The QA Engineer receives direction from the PM regarding project priorities. The QA Engineer reports to and receives technical direction from the QA Manager.

3.1.7 Project Engineer (PE)

The PE is responsible for completing engineering activities supporting the decommissioning project. The PE is responsible for complying with Engineering Department procedures applicable to the project scope of work. He/she receives daily project direction from the PM and reports to the Engineering Manager for technical overview.

3.1.8 Regulatory Compliance Engineer

The Regulatory Compliance Engineer reports to the PM and is responsible for ensuring that the project activities are conducted in compliance with applicable environmental and regulatory requirements as identified in RFCA. The Regulatory Compliance Engineer will review IWCPs and change work processes, as necessary, to ensure the projected work is completed within existing permit requirements or he/she will have the permits issued/ modified to include the proposed work. The Regulatory Compliance Engineer is the PMs' interface with State and Federal regulators. The Regulatory Compliance Engineer will track all regulatory commitments and coordinate their completion.

3.2 DECOMMISSIONING OBJECTIVES

All sampling data was reviewed and considered valid and, thereby usable, in accordance with sampling, analytical, and record keeping procedures. Data Quality Objectives for the characterization have been satisfied.

The objective of all decommissioning actions is to safely dismantle all systems, and remove material internal to the facilities, decontaminate all hazards areas within the structures, and dismantle the external framework. This will be completed through the integration of DOE guidance and Orders, site infrastructure pre-job planning and briefing, training on general safety and job specific safety, and documenting processes that have been improved with previous projects lessons learned.

The Decommissioning Program is comprised of the resources to budget, plan, engineer, execute and control the decommissioning of the entire RFETS, consisting of several major facilities. Each major facility, group of facilities (cluster) or grouping of similar facility areas may comprise a decommissioning project.

Each of the decommissioning projects assigned within the Decommissioning Program have many common activities that will be managed at the program level. These activities consist of planning, engineering, permitting, characterization, waste disposal, site preparation, and final release. In this manner, these activities can be accomplished beginning immediately with a level of effort staffing. The deliverables of these activities are prepared in advance of individual project needs. This will allow the operations activity schedule of the Decommissioning Program to be compressed, which will have a major effect on the surveillance and maintenance costs due to a reduced overall schedule.

Activities that include dismantlement, decontamination, demolition, and site-specific preparatory activities will be managed at the project level. The PM will be responsible for the integration of project activities for individual projects and will have full responsibility for directing all resources necessary to complete the project.

Because the Building 980 Cluster Decommissioning Project will be conducted within the PA, safeguards and security have been considered and work will be performed within the guidelines set forth by RFETS Security.

3.3 DECOMMISSIONING PROCESS

The decommissioning process is described in general terms as: decommissioning planning and engineering, and decommissioning operations. This process documents the minimum elements that will be utilized by the Decommissioning Program to document respective actions.

The objectives of the Building 980 Cluster Decommissioning Project are as follows:

- Characterize the facilities to enable the decommissioning work to be adequately planned, ensuring safety of the decommissioning workers, the public, and the environment.
- Complete the decommissioning activities with no personnel injuries.
- Remove the contents of the Building 980 Cluster facilities utilizing surplus property procedures.
- Remove, survey, and transfer the material immediately surrounding the Building 980 Cluster to Property Utilization and Disposal for salvage scrap and/or re-use.
- Abate any ACM from the Building 980 Cluster prior to demolition.
- Dismantle the Building 980 Cluster facilities down to the facility foundations without disturbing the surrounding environs.
- Sanitary sewer, domestic water, and underground fire water lines will be left in place.

3.3.1 Characterization Planning And Engineering

The decommissioning planning phase begins with the selection/release of facilities/units to the Decommissioning Program. The release of facilities/units from facility management to the Decommissioning Program begins with the review of facility documentation and characterization data and a walk-down of the facilities by decommissioning personnel. Once the release has occurred, the Decommissioning Program will develop project-specific documents. A project-specific plan will have been developed by the Decommissioning Program staff for preliminary budgeting purposes which reflects the decommissioning section of the Site Lifecycle Baseline. The Decommissioning Program Manager will develop this plan, to the detail necessary, and apply the Decommissioning Cost and Schedule Control System. This plan is based on the information gathered, facility process knowledge, and planned decommissioning activities. Depending upon the availability of funds, the decommissioning planning phase will generally be conducted prior to the release of the facilities to the Decommissioning Program.

The Program Manager will have a project-specific Health And Safety Plan (HASP) developed which identifies the types of hazards within the decommissioning work scope. Those hazards will be mitigated through implementation of controls identified in the Project Hazard Assessment (PHA). This HASP may be developed by a subcontractor if the work is subcontracted. This project-specific HASP also requires the use of Activity Hazard Analysis (AHA) for each task. The PHA is the personnel hazard assessment for the specific task addressed in the AHA.

The PHA is primarily for the protection of the workers and will identify any safety issues such as the need for Personal Protective Equipment (PPE) and confined space entry. Personnel risk analysis will address the potential for contamination of personnel and hazards associated with chemicals in the area. Engineering support will assist in identifying methodologies and equipment to be utilized during the decommissioning process. This step is to minimize impacts and provides a well organized approach to decommissioning.

Waste management activities and waste minimization requirements will be incorporated in the IWCP. Waste volumes will be estimated and provided to the Waste Management organization for their planning purposes. Waste minimization techniques will be used to reduce the volume of waste generated by the decommissioning actions. Minimal radiological and hazardous waste is expected to be generated in completing this project (see Waste Management Section 3.7).

3.3.2 Decommissioning Physical Work

The decommissioning activities which will be completed in the Building 980 Cluster are identified below:

- Remove the permanent equipment from the structures and surrounding areas (e.g., cargo containers).
- Complete the asbestos abatement.
- Disconnect and cap water utilities.
- De-energize and disconnect electrical power (the electrical power system around the Building 980 Cluster will be modified to eliminate obsolete sections).
- Remove the facility structures.
- Check facility to ensure no new ground water migration paths are introduced. The foundations will be left in place and sealed, if necessary, to inhibit precipitation migration through the foundation into the ground water.

(Note: All activities are controlled through the use of IWCPs which identify how tasks will be completed and state what safety precautions apply to the task being performed.)

3.4 QUALITY PROGRAM

A commitment to a quality program and a continuous improvement philosophy are applied from project start through completion. This commitment to quality is instilled at all project levels, and adherence to this commitment is instrumental in the project's success. All project personnel are responsible for following approved QA program requirements and participating in quality improvement activities.

QA/QC personnel are involved at the initial planning stages of the project during site preparation and during project execution. The QA organization assumes a proactive role during the project by identifying and/or preventing potential problems or shortcomings, offering solutions, and assisting in corrective action steps. QA personnel are also responsible for objectively verifying that management/DOE directions and policies are being effectively implemented by the responsible organizations. The QA/QC role includes:

- Assurance that the engineering and administrative procedures are adhered to and are consistent with other project/DOE requirements
- Performance of audits and surveillances
- Review of applicable procurement and work documents
- Assurance of document review and approval requirements
- Review of data gathering methodologies
- Determine compliance with procedures
- Inspection of waste packaging
- Inspection of incoming materials

- Performance of facility walkdowns
- Monitor project for potential improvements
- Monitor corrective action initiatives

3.5 WORKER HEALTH AND SAFETY

Due to the scope of work and the potential hazards associated with this decommissioning action, this project will comply with the OSHA Construction Standard For Hazardous Waste Operations And Emergency Response, 29 CFR 1926 and Health And Safety Practices (HSP) 24.01, Construction Safety And Health Requirements. Under these standards, a site-specific HASP will be developed to address the safety and health hazards of each phase of site operations and specify the requirements and procedures for employee protection. In addition, the DOE Order for Construction Project Safety And Health Management, 5480.9A, applies to this project. The Order and HSP 24.01 require the preparation of AHAs to identify each task, the hazards associated with each task, and the actions taken to mitigate the hazards. These requirements will be integrated into the work process wherever appropriate.

This project could expose workers to physical, chemical, and low levels of radiological hazards. The physical hazards associated with decommissioning activities include: the use of heavy equipment, electrical shock, noise, heat stress, and work on elevated surfaces. Physical hazards will be mitigated by appropriate use of PPE, pre-engineering evaluation, briefing, training, and administrative controls. Chemical hazards will be mitigated by the use of PPE, removal of sources, and administrative controls. Appropriate skin and respiratory PPE will be worn throughout the project as directed by Industrial Hygiene personnel. Based on employee exposure evaluations, the site Health and Safety Officer may downgrade PPE requirements, if appropriate. If field conditions vary from the planned approach, the AHA will be modified for the existing circumstances and work will proceed according to the appropriate control measures. Data and controls will be continually evaluated. Radiological Work Permits will be generated for areas of contamination and will identify the areas of potential surface contamination, appropriate PPE, and airborne radioactivity controls, if necessary. Finally, dust minimization techniques will be used to minimize re-suspension or fugitive dust emissions.

3.6 CHARACTERIZATION

Characterization of a facility is the process of identifying the physical, chemical, biological, and radiological hazards that are associated with a facility. The hazard may be contained (i.e., acid in a tank or loose radioactive material on the floor) or the hazard may be potential (i.e., broken ladder or immediate, or a leaking pipe which contains radioactive material).

All existing equipment and materials will be characterized using process knowledge, material composition, and surveys, as appropriate to determine the potential for hazardous constituents, Toxic Substances Control Act (TSCA) materials, or radioactive contamination. The equipment and materials will be handled, stored, and/or disposed of in accordance with applicable State and Federal regulations.

This section discusses the types and phases of characterization which have been and will be completed for the Building 980 Cluster.

3.6.1 Scoping Characterization

The Scoping Characterization phase is the process of gathering information about facility hazards from existing sources. The main sources of this information are historical records, routine survey records, facility walkdowns, and interviews with former facilities' personnel.

3.6.2 Reconnaissance Characterization

The reconnaissance characterization phase establishes a definitive baseline of information about the facilities' hazards. During this phase of characterization, the information from the scoping characterization is used in conjunction with a review of the proposed decommissioning activities to determine if the proposed activities are feasible and to identify the need for additional sampling and/or surveys. If additional characterization information is needed to adequately define the quantity and distribution of contaminants, the additional samples would be obtained during the reconnaissance characterization phase. The culmination of this phase results in development of a Reconnaissance Level Characterization Report (RLCR). The RLCR is a summary of all known characterization information which was obtained for the facilities being investigated. The RLCR is included as Attachment 2.

It is not anticipated that any environmental sampling will be required during the Building 980 Cluster decommissioning. However, if conditions change and environmental sampling becomes necessary, a Sampling And Analysis Plan (SAP) will be prepared in accordance with the RFCA. The SAP requires approval by the Lead Regulatory Agency (CDPHE) before the action can commence.

A SAP is made up of two parts: the Field Sampling Plan (FSP) and the QA Program Plan (QAPP). The FSP identifies sample, quantity, location, method for handling, collection, and storage of samples and the method of analysis. The QAPP documents the quality actions associated with the project.

3.6.3 Characterization Summary

Based on review of the available information, it was determined that no further sampling or radiation surveys were required prior to completing the RLCR. However, additional sampling will be performed as In-Process Characterization. The existing data is adequate to plan for the decommissioning activities and provide protection for the work force. The following decisions and observations were made from the Reconnaissance Level Characterization data:

1. There are no areas within the Building 980 Cluster that contain significant amounts of unidentified, uncontrolled, or unmarked radioactive contamination.
2. Although hazardous chemicals were housed in the Building 980 Cluster facilities, all excess and hazardous chemicals have been removed during the deactivation process. A few paints and cleaning solvents remain which will be removed by the subcontractor. Because the majority of chemicals have been removed and there are no known areas which have a buildup of chemical residue, no special chemical characterization is anticipated. Should a chemical be found during the decommissioning process, the chemical will be handled in accordance with existing chemical identification and handling procedures.
3. The specific quantity and distribution of ACM is known. An inspection of the facilities has been completed and the results are summarized in the RLCR.
4. Paints (specifically red and yellow) used for safety markings are considered lead based. Analytical data has confirmed the presence of lead in these paints. AHA will assume that these paints contain lead and appropriate precautions will be included in the work activity.
5. The fluorescent lights and associated ballasts will be removed and disposed of in accordance with appropriate RFETS procedures.

6. Although no Polychlorinated Biphenyls (PCBs) are anticipated in the Building 980 Cluster, one floor coating sample has been analyzed from Building 980 due to the age of the facility (1957 construction). This sample was obtained and analyzed in accordance with the Decontamination and Decommissioning (D&D) Characterization Protocol and guidance obtained from TSCA Program Management. No PCBs were detected in the sample.

The Building 980 Cluster project-specific HASP utilizes the characterization information to ensure that the associated hazards are addressed. For day-to-day field activities, the HASP requires that AHAs are developed to ensure worker protection and safety on a task specific basis.

3.7 WASTE MANAGEMENT

A project-specific Waste Management Plan will not be developed for this project. Waste management information is contained in the RLCR for the Building 980 Cluster. The waste management information is summarized below:

- There are three drums of low-level radiological waste in Building 980. These drums were left in the facility after decontamination of the solar pond vacuum truck. The waste travelers will be verified to be complete and accurate, and the drums will be removed from the area.
- Building 980 Cluster records indicate that there is no radiological contamination in Building 980, 965, or 968. A random radiological survey sampling indicated no radiological contamination in the Building 980 area which houses the vacuum truck.
- Buildings 980 and 968 house portable equipment which was used in other site facilities. These items will be cleaned and surveyed for free release. Some of these items have surfaces which cannot be surveyed and, therefore, will be treated as a low-level waste (LLW).
- Based on the information provided above, the following waste volume estimates are:

Type Of Waste	Volume
Transuranic Waste	None
Low-Level Waste	3 Drums, 3 Crates
Mixed Waste	None
Hazardous Waste (i.e., paint solvents)	2 Drums
Industrial (i.e., recycled metal)	163 Tons
Industrial (i.e., drywall and misc. consumables)	30 yd ³
Asbestos Containing Material	6 yd ³

4.0 ENVIRONMENTAL ISSUES

It is DOE's policy that National Environmental Policy Act (NEPA) requirements are considered with respect of decommissioning activities.

August 1, 1997

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Secretary's 1994 policy on incorporation of NEPA rules into current documents.

Disagree should there be a waste management plan for this project

just follow how done in the Bleg 123 form (e.s. 3.4)

4.1 PROPOSED ACTION AND ALTERNATIVES

4.1.1 Proposed Action

The proposed action is the D&D of the Building 980 Cluster. D&D activities are to follow a project-specific plan approved by the DOE and CDPHE. Activities consist of site and facility characterization, decontamination, dismantlement, and waste generation. Any hazardous, LLW and low-level mixed waste generated by D&D activities would be transported to an appropriate facility for storage followed by disposal. The objective of the proposed action is to reduce the overall Site mortgage by removal of facilities that no longer have an intended mission. D&D includes removing equipment, decontaminating facility surfaces and structural members; surveying the facility for residual contamination; and characterizing, packing, and shipping any resulting wastes. Removal of residual contamination would be initiated with the simplest and least aggressive method, such as decontamination using damp cloths. The entire facility would be dismantled (with the exception of the building slab) and debris would be shipped to appropriate off-site facilities for disposal or recycle.

4.1.2 Alternative Actions

- Alternative 1 to Proposed Action: No Action, Maintain Safe Shutdown

This alternative would involve maintenance of Building 980 Cluster facilities in a safe-shutdown status, including general maintenance.

- Alternative 2 to Proposed Action: Alternative Use

The alternative would involve the identification of a mission related use for the Building 980 Cluster.

4.1.3 Evaluation of Alternatives

Alternative 1 was rejected since such efforts would neither facilitate clean up of RFETS as defined under the Life Cycle Baseline, nor would it reduce the overall Site mortgage.

Alternative 2 was rejected since creating a use for facilities already deemed excess is in conflict with the Site cleanup mission, nor would it reduce the overall Site mortgage.

4.2 ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION

Environmental effects associated with the D&D of the Building 980 Cluster are described in the following:

4.2.1 Geology And Soils

Decommissioning activities will disturb less than four (4) acres of land, most of which has previously been disturbed and is not vegetated. No soil contouring will be conducted after facilities are removed. Geological effects associated with demolition activities may include short-term increases in soil erosion and siltation. Because the area subject to impact through equipment transport is not vegetated, no significant loss in soil productivity is anticipated.

4.2.2 Air Quality

No air quality impacts are expected after the project has been completed. Short-term impacts, such as increase in dust due to heavy equipment movement, if experienced, will be mitigated by

not
sufficient
follow
the
B&E
plan

dust suppression techniques and excavation controls. Dust generated during the decommissioning effort will be managed with engineering controls. In addition, non-electric generators may be used as power support to demolition equipment. Smoke emissions generated when non-electric generators are used, will be monitored by Site Air Quality Management to ensure that the level of opacity does not exceed 20%.

4.2.3 Water Quality

Measurable surface water and ground water quality impacts are not anticipated due to evaluation of relevant historic rainfall data. Removal of facilities, while leaving the cement pads intact is not expected to effect storm water runoff from the Building 980 Cluster area, nor is it expected to impact the amount of precipitation that percolates into the soil. Most of the local precipitation either evaporates on the ground surface or is taken up by vegetation in the surrounding area.

4.2.4 Fauna And Flora

A small wetland area is located east of Building 980. The wetland area is not particularly suitable habitat for threatened and endangered species and migratory birds due to its overall size and location. In any event, the area will be labeled with caution tape and barricades will be installed to ensure that the wetland area remains undisturbed.

4.2.5 Human Health

Human health impacts are addressed through requirements for worker protection and requirements to control the dispersion of contamination to air, water, and soil. Exposures to workers and the public will be controlled and monitored in accordance with RFETS standards which are based on State and Federal requirements.

4.2.6 Noise

Decommissioning activities will involve common industrial with a variety of associated noise levels. Because the Building 980 Cluster is relatively isolated from other RFETS work areas, any elevated noise levels will be muffled. The anticipated method of demolition will be shears attached to a piece of heavy equipment. In the event that scabbling is required, higher than ambient noise levels will result. Workers involved in such activities will use appropriate hearing protection devices. Outdoor activities will be conducted in a safe manner in which noise will not affect non-involved workers and the public.

4.2.7 Historical Resources/HUD/GSA

The Building 980 Cluster has not been identified as a Potentially Historic Structure in the programmatic agreement between the DOE/Rocky Flats Field Office, the Colorado State Historic Preservation Office, and the Advisory Council On Historic Preservation. The McKinney Act requires that excess federal facilities be identified to the U.S. Department of Housing and Urban Development (HUD) to determine their suitability to assist homeless persons. The McKinney Act provisions do not apply to facilities, such as the 980 Cluster, that are covered under the Atomic Energy Act. Property removal and building demolition is coordinated GSA through the Site Property and Utilization Program.

4.2.8 Irreversible And Irretrievable Commitments Of Resources

Decommissioning is essentially a destruction related project that eliminates existing uses for that which has been destroyed. Decommissioning is not a construction project that consumes land and building materials. Funds, labor, equipment, fuel, tools, PPE, waste storage drums, and similar items are resources that will be irretrievably committed to this decommissioning project.

August 5, 1997

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Need Cumulative Impacts H → see RF 123 PAM

5.0 ARARs

Decommissioning actions at RFETS that are performed under a PAM must attain, to the maximum extent practicable, compliance with Federal and State ARARs. The substantive attributes of the Federal and State ARARs, relating to this proposed action, are identified in this section and summarized in Table 5-1. In addition, Table 5-1 identifies whether the requirement is applicable, relevant and appropriate, or To Be Considered (TBC). (Note: No relevant and appropriate ARARS have been identified for the Building 980 Cluster project.)

The Colorado Air Pollution Prevention And Control Act standards for emissions (5 Colorado Code of Regulations [CCR] 1001-3, 5 CCR 1001-9) have been identified as action-specific ARARs. Based on process evaluation and Air Quality Management review, the anticipated air emissions are not sufficient to generate Air Pollution Emission Notices or air permitting requirements. Colorado Air Quality Control Commission Regulations Numbers 10 and 15 (5 CCR 1001-10 and 5 CCR 1001-15) will be followed to maintain the quality of air with respect to construction activities specific emission sources such as generators which use petroleum products, and the disposal of refrigerants. In addition, 5 CCR 1001-14 will be followed to maintain the quality of ambient air in compliance with the National Ambient Air Quality Standards (NAAQS). Applicable emission standards for asbestos will be accomplished in accordance with Regulation 8, Part B.

Additionally, the National Emission Standards For Hazardous Air Pollutants (NESHAP) (5 CCR 1001-10; 40 CFR 61 Subpart H) have been identified as a chemical-specific ARAR to evaluate potential radionuclide emissions. The EDE will be calculated for those emissions anticipated from the operations associated with facility demolition.

Minimal hazardous waste generation is anticipated from demolition. Remediation waste generated during this removal action will be evaluated under 6 CCR 1007-3, Part 261, Identification and Listing of Hazardous Waste, specifically Subparts A through C and managed in accordance with 6 CCR 1007-3, Part 262, Standards Applicable To Generators Of Hazardous Waste. Remediation waste will be managed in either a temporary unit established pursuant to 6 CCR 1007-3, 264.553 or in a 90-day accumulation area established pursuant to 6 CCR 1007-3, Part 262.34A, whichever is most appropriate. In the event that an area is established pursuant to 262.34, Accumulation Time, then 40 CFR Part 265, Use And Management Of Containers, is an applicable ARAR. In addition, all sections regarding off-site shipment of wastes contained in 6 CCR 1007-3, Part 268, Land Disposal Treatment Standards are applicable ARARs except for Part 268.44, 268.50, 268.6, 268.7 and 268.9.

Compliance with asbestos requirements is an applicable ARAR and will be achieved in accordance with 5 CCR 1001-10 and 29 CFR 1926.1101. The substantive requirements of 5 CCR 1001-10 which involve work practices aimed at the protection of the worker/public are virtually identical to the OSHA requirements in 29 CFR 1926.1101. At RFETS this is controlled through the Industrial Hygiene group in accordance with HSP 1-62200HSP-9.09. NESHAP standards for asbestos will be implemented through specific operational directions in IWCPs in accordance with Colorado Regulation 8, Part B.

Screening for PCBs will be performed on suspect materials prior to demolition. Presently, the painted concrete facility pads are the only areas where special use coatings, which may contain PCBs, are suspect. Sampling results have been obtained and are less than 50 ppm for PCBs. Any other materials, identified through In-Process Characterization, as suspect of containing PCBs will be managed in accordance with 40 CFR Part 761, Disposal Of Polychlorinated Biphenyls, if determined to contain ≥ 50 ppm PCBs.

Due to the potential for radiological contamination in specific areas of the Building 980 Cluster, guidelines contained in DOE Order 5400.5 have been identified as TBC. In the event that

August 1, 1997

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Table 5-1 ARARs For The Building 980 Cluster

Action	Requirement	Prerequisite	Citation	ARAR
Air Quality	Compliance with air emissions	Prevention of exceeding emissions for smoke, particulate, and volatiles of concern.	5 CCR 1001-3 5 CCR 1001-9	Applicable
Air Quality	Compliance with NESHAP	Regulates radionuclide emissions from DOE facilities limit of ten mrem/yr. Site standard.	5 CCR 1001-10, 40 CFR 61 Subpart H	Applicable
Air Quality	Compliance with NAAQS	Maintain quality of ambient air for criteria pollutants.	5 CCR 1001-14	Applicable
Air Quality	Compliance with asbestos requirements	Certification, training, notification standards for demolition, storage, and handling of waste.	5 CCR 1001-10	Applicable
Air Quality	Compliance with particulate control	Implemented for construction activities, haul roads, haul trucks, demolition activities.	5 CCR 1001-3	Applicable
Air Quality	Compliance with Hazardous Air Pollutants	Implemented if the remedial action involves a specific regulated source type or pollutant.	5 CCR 1001-10	Applicable
Air Quality	Compliance with ozone depleting compound requirements	Ensure refrigerants are disposed of and disassembled. Use trained, registered, certified technicians, approved vessel recovery method must be used.	5 CCR 1001-15	Applicable
Air Quality	Emission Standards for Asbestos	Implemented through specific operational directions in IWCPs	Colorado Regulation 8, Part B	Applicable
TSCA	Disposal of PCBs	Ensure that any materials with ≥ 50 ppm for PCBs are managed according to TSCA.	40 CFR Part 761	TBC
Generator Standards	Standards Applicable to Generators of Hazardous Waste	Ensure that generators perform a hazardous waste determination, address pre-transportation requirements and accumulation time, and record keeping.	6 CCR 1007-3, Part 262.11, 262.40-.43	Applicable
Generator Standards	Accumulation Time	Generators may accumulate hazardous waste on-site for 90 days without a permit	6 CCR1007-3 Part 262.34	Applicable

Why is this table so different than the others?
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Proposed Action Memorandum
For The Decommissioning Of The Building 980 Cluster

Action	Requirement	Prerequisite	Citation	ARAR
TSD Facility Standards	Temporary unit container storage requirements for Corrective Action Management Units	Operate temporary container storage area.	6 CCR 1007-3, 264.553	Applicable
Hazardous Waste	Compliance with Colorado Hazardous Waste Act	Identification and characterization of hazardous waste	6 CCR 1007-3, 261	Applicable
Interim Status TSD Facility Standards	Use and Management of Containers	Requirements that apply to owners and operators of all hazardous waste facilities the store containers of hazardous waste	40 CFR 265, Subpart I	Applicable
LDR	Land Disposal Restriction Requirements	Specific to off-site shipment of waste from D&D	40 CFR 268	Applicable
LDR	Treatment standards for hazardous debris	Requirements for treatment of hazardous debris	40 CFR 268.45	Applicable
Radiation Protection	Standards for rad. protection	Establishes the criteria for the protection of human health and the environment.	DOE 5400.5	TBC
OSHA	Asbestos Requirements	Establishes work practices aimed at protection of worker/public.	29 CFR 1926.1101	Applicable
DOE Order 5420.2A	Radioactive Waste Management	Requirements for the management and packaging of LLW		TBC

radiological contamination is identified, DOE Order 5400.5 will be followed to ensure protection of the workers, the public, and the environment. In addition, DOE Order 5420.2A, Radioactive Waste Management, has been identified as TBC and contains the requirements for the management and packaging of LLW.

Soil excavation will not be necessary during this removal action. The cement pad for each facility will remain in place. The Individual Hazardous Substance Site located on the south side of Building 980 will be secured to ensure no disruption of soils within its boundary.

The only potential impact to water quality associated with the Building 980 Cluster project is due to storm water run off during the demolition phase. Quantities of water-borne soil leaving the immediate area are expected to be small.

6.0 IMPLEMENTATION SCHEDULE

The Building 980 Cluster is scheduled for decommissioning by the end of this fiscal year (September 30, 1997). (See Attachment 1.)

7.0 DOCUMENTATION

A closeout report will be generated identifying work completed, method of validation, sampling date (if any), status of any areas of risks, any new areas of concern, and the status of the unit at the end of the decommissioning action. The report will also include:

- Any modifications or variations from the original decision document (this PAM).
- Any analytical results, including the results of any confirmatory sampling taken to verify completion of the action.
- Quantity and characteristics of the actual wastes produced and how the wastes were stored or disposed.

This document closes the decommissioning administrative record.

8.0 REFERENCES

DOE, 1992, *Historical Release Report for the Rocky Flats Plant*, Rocky Flats Plant, Golden, CO.

DOE, 1996, *Final Rocky Flats Cleanup Agreement, Rocky Flats Environmental Technology Site*, Golden, CO.

Kaiser-Hill Company, L. L. C., 1996, *Rocky Flats Environmental Technology Site Radiological Control Manual*, June 1996.

DOE, *Waste Stream and Residue Identification and Characterization for Building 965, 968, and 980*.

Nuclear Regulatory Commission, 1992, *NUREG/CR-5849, Manual For Conducting Radiological Surveys In Support Of License Termination*.

Attachment 1

Project Schedule

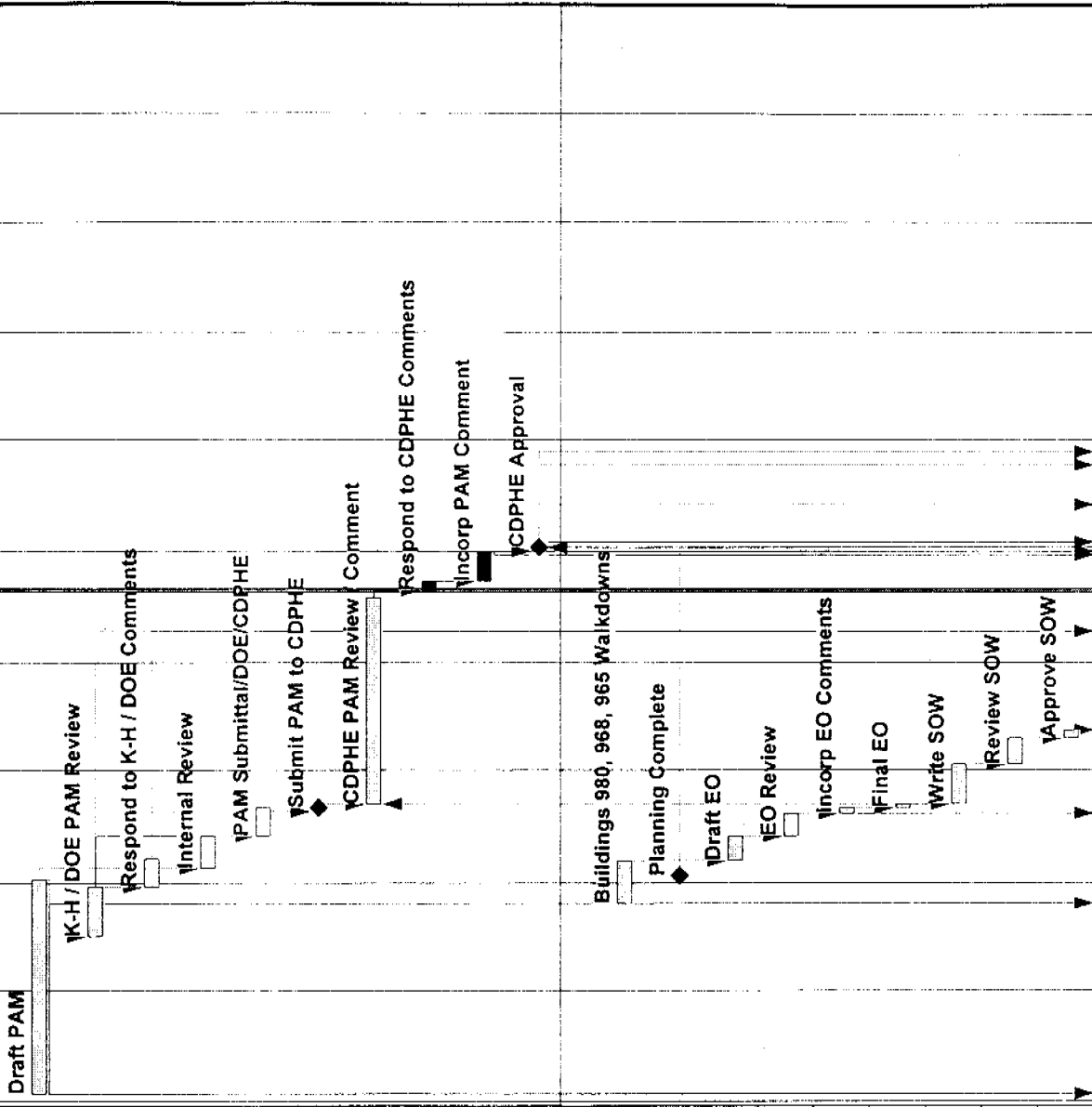
980 Complex Decommissioning

PAM

0100	Draft PAM	15	0 00	03MAR97A	01MAY97
0690	K-H / DOE PAM Review	9	0 00	16APR97A	29APR97A
0700	Respond to K-H / DOE Comments	5	0 00	30APR97A	07MAY97
0450	Internal Review	7	0 00	05MAY97A	13MAY97
0110	PAM Submittal/DOE/CDPHE	5	0 00	14MAY97A	21MAY97
0710	Submit PAM to CDPHE	0	0 00		21MAY97
0120	CDPHE PAM Review / Comment	58	0 00	23MAY97A	18JUL97A
0730	Respond to CDPHE Comments	3	3 0	21JUL97A	23JUL97
0130	Incorp PAM Comment	5	5 0	24JUL97	31JUL97
0140	CDPHE Approval	0	0 0		01AUG97

Engineering

0290	Buildings 980, 968, 965 Walkdowns	7	0 00	25APR97A	06MAY97
0640	Planning Complete	0	0 00		02MAY97
0300	Draft EO	5	0 00	07MAY97A	13MAY97
0310	EO Review	3	0 00	14MAY97A	19MAY97
0320	Incorp EO Comments	2	0 00	20MAY97A	21MAY97
0330	Final EO	1	0 00	22MAY97A	22MAY97
0550	Write SOW	5	0 00	23MAY97A	02JUN97A
0560	Review SOW	5	0 00	03JUN97A	09JUN97A
0570	Approve SOW	2	0 00	10JUN97A	11JUN97A



Activity	Activity Description	Orig. Rem. #	Est. #	Start	Finish	Days
0580	Issue RFP	2	0 00	12JUN97A	23JUN97A	
0590	Receive Proposals	5	5	0 21JUL97	28JUL97	
0600	Proposal Technical Evaluation	3	3	0 29JUL97	31JUL97	
0610	Issue Contract	1	1	0 01AUG97	01AUG97	
0620	S/C to Write HASP	7	7	0 04AUG97	13AUG97	
0630	S/C to Write Demolition Plan	7	7	0 04AUG97	13AUG97	
IWCP						
0340	Draft IWCP	16	0 00	20MAY97A	12JUN97A	
0350	IWCP Review	3	3	0 16JUN97A	23JUL97	
0360	Incorp IWCP Comments	2	2	0 24JUL97	28JUL97	
0370	Final IWCP	2	2	0 29JUL97	30JUL97	
Characterization						
0160	Building Character	26	0 00	25APR97A	05JUN97A	
0190	Reconnaissance Chara	7	0 00	06JUN97A	17JUN97A	
0650	Submit Recon Chara Rpt to K-H	0	0 00		10JUL97A	
0780	K-H Review Chara Rpt	15	14	7 11JUL97A	30JUL97	
0800	Submit Recon Chara Rpt to DOE	0	0 0		31JUL97	
0230	In Process Characterization	6	6	0 21JUL97	29JUL97	
Building 965						
0380	B965 DCI Rad Screen	2	42	0 06JUN97A	24SEP97	
0390	B965 DCI Equip Removal	5	5	0 31JUL97	06AUG97	
0250	Asbestos Removal in B965	5	5	0 04AUG97	11AUG97	
0280	Verify All Environmental Concerns	1	1	0 07AUG97	07AUG97	
0210	Utilities Disconnect in B965	1	1	0 11AUG97	11AUG97	
0150	Dismantle Building 965	10	10	0 14AUG97	28AUG97	

Activity	Description	Qty	Unit	Estimate	Status	Start Date	End Date
0270	Plug Drains In B965	1	1	0	14AUG97	14AUG97	
Building 968							
0400	B968 DCI Rad Screen	13	12	8	06JUN97A	06AUG97	
0410	B968 DCI Equip Removal	13	12	8	06JUN97A	06AUG97	
0470	Asbestos Removal in B968	10	10	0	07AUG97	21AUG97	
0530	Verify All Environmental Concerns B968	1	1	0	07AUG97	07AUG97	
0510	Utilities Disconnect B968	3	3	0	11AUG97	13AUG97	
0440	Dismantle B968	15	15	0	25AUG97	16SEP97	
0460	Plug Drains in B968	3	3	0	25AUG97	27AUG97	
Building 980							
0420	B980 DCI Rad Screen	19	0	00	25APR97A	23MAY97	
0430	B980 DCI Equip Removal	26	0	00	25JUN97A	01JUL97A	
0540	Verify All Environmental Concern	1	2	0	31JUL97	01AUG97	
0520	Utilities Disconnect B980	1	1	0	04AUG97	04AUG97	
0500	Asbestos Removal in B980	10	10	0	14AUG97	28AUG97	
0260	Dismantle Building 980	20	20	0	29AUG97	30SEP97	
0480	Remove Air Conditioner in B980	1	1	0	29AUG97	29AUG97	
0490	Plug Drains in B980	1	1	0	02SEP97	02SEP97	
Rad Info							
0180	Preliminary Rad Survey	30	0	00	25APR97A	11JUN97A	
0200	Rad Survey Plan	15	4	73	12JUN97A	24JUL97	
0240	Final Building Surveys	29	29	0	11AUG97	24SEP97	
Closeout and Verification							
0790	Final Verification / Sign off	27	27	0	18AUG97	29SEP97	
0670	Demolition Complete	0	0	0		30SEP97	

Activity	Activity Description	Orig. Rem.	Early Start	Early Finish
(#)		(Dur.)	Date	Date
0720	FPCO	0	0 31 OCT 97*	
0740	Accounting Closeout	10	0 03 NOV 97	14 NOV 97
0660	Building Demolition PAM	152**	12* 92 103 MAR 97A	01 AUG 97
0680	Building Characterization	96*	9* 91 25 APR 97A	29 JUL 97
0750	Demolition Contract Award	0	0 0	31 JUL 97
0760	980 Complex Demolition	24*	0 11 AUG 97	16 SEP 97
0770	Utilities Removal	3*	0 11 AUG 97	13 AUG 97

Attachment 2

Reconnaissance Level Characterization Report For The Building 980 Cluster